

Minicam Photography

MARCH, 1943

Cents



WILSON CANIFF
with his camera
to create
ERRY AND THE
IRATES

TO COPY PRINTS AND TRANSPARENCIES
EXPOSURE MUST BE RIGHT FOR KODACOLOR
A GADGET BAG FOR CAMERA EQUIPMENT

YEAR AFTER YEAR—

THE STORY UNFOLDS

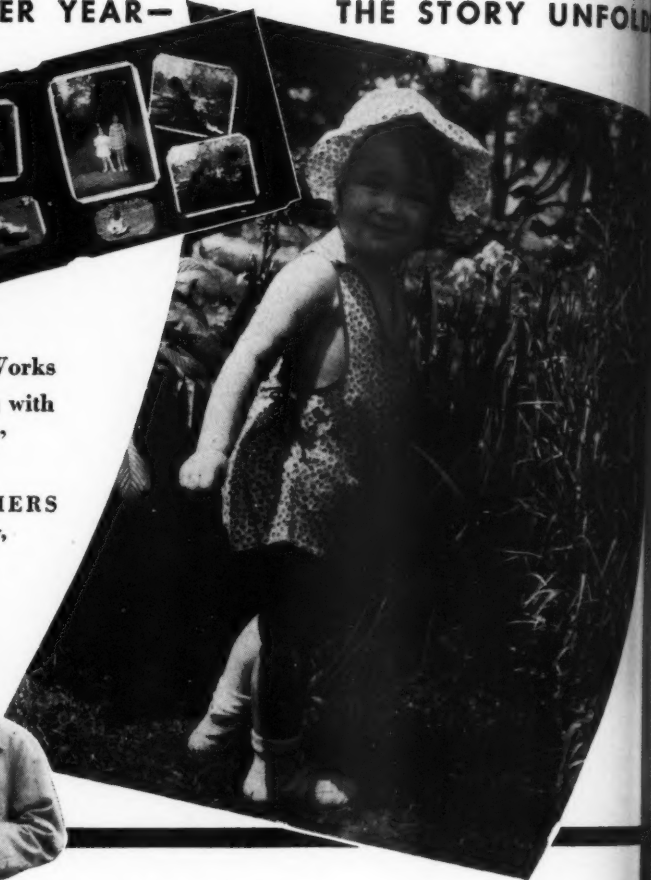


**"My Argus Works
Like a Charm with
Children"**

says

H. B. SUMMERS

New Albany,
Indiana



Like most photographers, Mr. Summers likes to take pictures of children, and the young lady above is his favorite model.

At 16 months, she is already a well-photographed miss, with a personal pictorial record that unfolds the story of her growth, year after year.

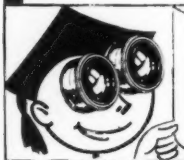
These are the pictures prized most by parents. They turn back the pages of the passing years to a series of priceless moments that are kept forever in Argus candid snapshots.

Your dealer may not have all Argus models in stock, but you'll find those he has are top-notch values.

"STROLL IN THE GARDEN"

one of Mr. Summers' splendid pictures that proves how attractive record pictures can be.

BUY WAR BONDS



Learn more about composition—lenses—film—and helpful hints for using any camera. Send 25c today for the 56-page book "Good Pictures"



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Fine American Made Cameras

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1/680th sec. at f11 on Superpan Press. Yellow Filter. Early A. M. in March.

What did Brovira do to this picture?

WITH Brovira, you'll find your finished pictures, like the ski shot shown here, beautiful with Brovira's rich blacks and sparkling whites . . . enlivened by the long, faithful scale of Brovira's tones. Brovira lets you get your enlargement *right* the first time, lets you save on paper . . . and that's important now!

You'll like Brovira's easy-working qualities and the sensitive control that it permits during development.

Your photographic dealer has Brovira Paper, not in as many different surfaces as before the war, but in the most popu-

lar ones. Visit him. Ask him about Brovira. Chances are—you'll find he uses it himself! **Agfa Ansco, Binghamton, New York.**

Agfa Ansco
BROVIRA PAPER

★ Minicam Photography

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Cover by Philip Planert

NEXT MONTH IN MINICAM . . .

"TOWNSEND GODSEY," the swappin' photographer of the Ozarks, tells how one photographer lives the life he likes, and makes photography pay for it.

"ANY WOMAN CAN TAKE GOOD PICTURES," says Florence Ward; "it's as easy to make a picture as it is to bake a cake."

"WHAT'S WRONG WITH SUPER SPEED FILM?" asks E. Hoffman Price, as a prelude to telling how he gets good shots under a variety of lighting conditions.

AND many other helpful ideas and gadgets for Wartime picture taking.

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Vol. 4, No.

BUY WAR BONDS



AND STAMPS

**A
4 ★ HIT
in the
SOLOMONS**

On the screen, *It Started with Eve*
A Universal Production

Look at them and be proud of them! As tough a bunch of hard-fighting marines and soldiers as ever outslugged the Japs. But now in a moment of leisure in a jungle setting, a screen goes up and a Bell & Howell Filmosound gives them the latest smash hit from Hollywood. Tired bodies are refreshed, taut nerves are relaxed, and they go back to their job of fighting—*fit to fight*.

To bring the movies of the homeland to its fighting men all over the globe is but part of the Bell & Howell war effort. For the home front there are Filmosound Projectors and the Filmosound Rental or Purchase Library with over 3,000 subjects.

Filmo cameras and projectors are also help-

ing train our armed forces. From movies made and projected with this equipment they learn about the weapons, tactics, and strategies of war.



Filmo

Bell & Howell Company, Chicago;
New York; Hollywood; Washington,
D. C.; London. Established 1907.

MOTION PICTURE CAMERAS AND PROJECTORS

PRECISION-MADE BY

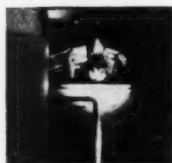
Bell & Howell

Some of the Most Timely Filmosound Library Subjects
Emergency First Aid ... Gardens for Victory ... Caucasian Barrier ...
Crimes of Democracy ... Winning Your Wings (with Jimmy Stewart)
—and hundreds of others. Write for details

The Last Word

The Gremlins Are Here Again
Sirs:

For several years I have enjoyed photography, but it was only recently that I discovered the cause of some of my darkroom trouble. By means of a remote control electric shutter I was able to get photographs of Betty, one of the most elusive of all photo Gremlins. The series of shots I made of Betty didn't please her at all. When she saw them she said, "These pictures make me look too old."



Betty comes out

In picture 2 Betty is having a foot-bath in the hypo.

In picture 1 Betty is just emerging from a partly empty chemical container, where she makes her home until the darkroom lights are put out.



... steps in Hypo



... "fixes" a film

In picture 4 Betty lights a cigarette so that she can watch a film develop out. Her footprints are quite visible.

I have been wondering whether any of your other readers have been bothered by Betty's relatives. She says she's lonely and would like to join a Gremlin's correspondence club.

Cranston, R. I.

Mary Morris

Sirs:

I enjoyed your story on Mary Morris of PA very much. I have been struck not alone with

Picture 3 shows Betty in one of the pastimes she loves best—walking across a sheet of unexposed film which was carelessly left on the darkroom bench.



... inspects her work
R. R. SHARLES



HELP SHORTEN THE WAR!

BUY MORE BONDS...
AND KEEP ON BUYING MORE BONDS



No matter how often this message is brought to our attention... no matter how many bonds we buy... it's not often enough—nor bonds enough.

Although KIN-O-LUX efforts are devoted to supplying the government... you can still buy KIN-O-LUX MOVIE FILMS and other accessories at your dealer.

KIN-O-LUX, INC. • 105 W. 40TH ST., N. Y. C.



her aesthetic approach, but even more forcibly by the great excellence of her work.

I don't know what your readers prefer, but for myself, I have always rated very high all good articles about successful photographers, such as the O. W. I. story, the Mary Morris article, and others you have had in the past.

FRED TOY.

Washington, D. C.

Add: Photo Agencies

Sirs:

We are sorry to be a little late in furnishing you with our requirements, but they are as follows: Pictures of human interest, local points of interest and industries and national notables. Our basis for payment is generally 50 per cent of sale, for unusual photographs 60 per cent. Payment made upon settlement by client.

HARRIS & EWING,
Photographic News Service.

17 East 42nd Street
New York, N. Y.

Sirs:

This photo will never be hung in an International Salon, but it has achieved two purposes. My photographic friends want to know how the chap threw such a long shadow. My patriotic buddies point out that if the picture is turned upside down, it makes a good "V for Victory" shot.



The shot was taken at the Lakeshore-Victoria Beach at 9 p.m. Central War time. The camera was an Ikoflex

with a Zeiss Triotar 3.5 lens. The film was Panatomic X. I exposed 1 second at f/16, and developed the film in DK20.

H. B. CHIPMAN.

Winnipeg, Canada.

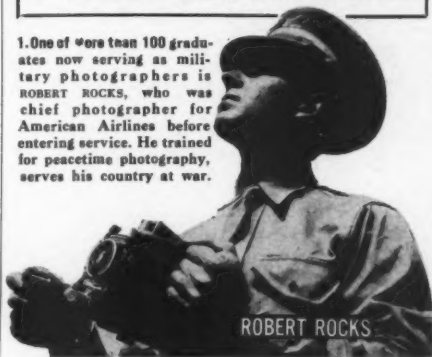
Pictures of the Berkshires Wanted

The Berkshire Hills Conference of Pittsfield, Mass., needs photographs, and wants to buy them from amateurs. Metropolitan newspapers and national magazines have used scenes of the Berkshires in conjunction with stories, and these have proved of great value in attracting visitors to the Berkshires. There have never been enough good pictures to satisfy the demand.

A picture committee will classify and grade every photograph sent to the Conference office.

CASE HISTORY of 2 YOUNG MEN and a GIRL

1. One of more than 100 graduates now serving as military photographers is ROBERT ROCKS, who was chief photographer for American Airlines before entering service. He trained for peacetime photography, serves his country at war.



ROBERT ROCKS

2. Fresh from School ESTHER BUBLEY went professional as a photography assistant at swank Vogue Magazine, then on to do documentary photography for a U. S. Government bureau. So, also, to an ever increasing group of graduates, the School has been the stepping stone to success. Courses may be started at any time, day or evening. TUITION FEES ARE MODERATE.



ESTHER BUBLEY

3. High esteem, in which THE SCHOOL OF MODERN PHOTOGRAPHY is held is indicated by the number of professionals, men like ARTHUR SELBY, N. B. C. photographer

who came here to study advanced techniques. Personal instruction by such photographic masters as Victor Keppler, John Hutchins, Helene Sanders, René George Crespin, Roy Pinney, Carlyle Trevelyan and others make advancement swift, often brilliant.



By ARTHUR SELBY



4. Fascinating Free Book—60 page detailing courses in COMMERCIAL ADVERTISING, BASIC MILITARY PHOTOGRAPHY, FASHION, PORTRAITURE, COLOR, NEWS; faculty biographies, equipment views and portfolio of prize-winning photographs, many in color. Write H. P. Sidel, Director—Dept. M3.

THE SCHOOL OF MODERN PHOTOGRAPHY
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New York City

LENSES

Finely Ground and Polished
New but edges very, very slightly chipped

Set No. 1-M **"Our Advertising Special"**

15 Lenses for \$1.60, Postpaid

Big 10 page booklet of plans and directions included

For copying, **ULTRA CLOSE-UP SHOTS**, microphotography, experimental optics, magnifying, and for making a two power $f/16$ telephoto lens, Kodachrome viewer, stereoscopic viewer, ground glass and enlarging focusing aides, telescopes, and for many other uses.

Set No. 5-M **"The Gadgeteer's Delight"**

35 Lenses for \$5.00, Postpaid

Contains all the lenses in Set No. 1-M plus at least twenty others of our more expensive lenses.

Set No. 10-M **"The Experimenter's Dream"**

70 Lenses for \$10.00, Postpaid

Contains all the lenses in the above sets plus thirty-five others that make this a "sensational buy." The variety of lenses in this set will enable you to conduct countless experiments, build a great variety of equipment, and with film rationing and a scarcity of many other photographic items, a set of these lenses is a real investment that will give you hour after hour of real pleasure. Every serious amateur and professional photographer should have a set of these lenses for present and future use.

Satisfaction Guaranteed

EDMUND SALVAGE COMPANY

Dept. No. 3

41 West Clinton Ave.

P. O. Audubon

New Jersey

If the picture is rated good enough, the photographer will be asked to furnish a 4x6 and an 8x10 glossy print. He will be paid \$2.00 for these prints. The smaller print will be pasted in an album and given a number and the album will be kept in the Conference picture library. There will be four volumes of prints, one scenic, one scenic with animation, one of sports pictures, and one of "genre" or everyday life scenes. Then, when a newspaper wishes pictures, the whole volume will be sent, and the publication can choose its own illustrations.

The pictures will be ordered from the members in the book, and the Conference will order and pay for additional prints from the original photographer. Thus the plan will work in such a way that a good picture may be a constant source of revenue to the photographer. The Berkshire Hills Conference has issued a bulletin which explains the details of the plan and lists the subjects most desired. This is available to all camera owners. Address: The Berkshire Hills Conference, Pittsfield, Mass.

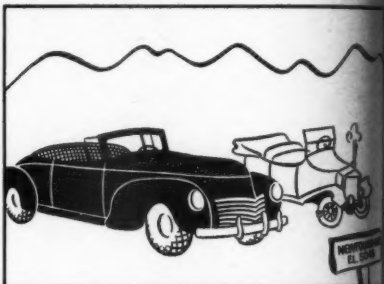




PHOTO BY U. S. ARMY SIGNAL CORPS

Photography mirrors an America worth fighting for

A Defender advertisement dedicated to one of the freedoms for which America fights . . . and which American photographers have recorded so often with their cameras.

Remember that picture you took of little Mary and her mother at vesper service, back in 1940?

You were worried about the composition then, and whether the light was right to catch the gold in Mary's hair. You printed it on Velour Black because you wanted to make the best picture possible . . . and you were as proud as punch when it won the Camera Club award.

You weren't thinking then of religious freedom . . . but right now some American boy

is fighting in mud to his knees to preserve that right . . . maybe it's you yourself . . . fighting so that all the world can stand up and sing as unafraid as little Mary, in the church of its choice.

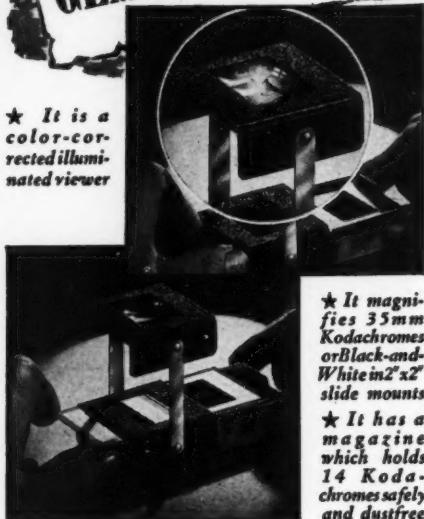
Defender

DEFENDER PHOTO SUPPLY CO. • ROCHESTER, N. Y.

**FOR ALL CAMERA FANS—
IN THE SERVICE OR OUT!**

GEMLITE Pocket Magazine
VIEWER

★ It is a
color-cor-
rected illumi-
nated viewer



★ It magni-
fies 35mm
Kodachromes
or Black-and-
White in 2"x2"
slide mounts

★ It has a
magazine
which holds
14 Koda-
chromes safely
and dust-free

It is the most versatile Kodachrome viewer in the country today. All-metal, precision made. The handy magazine, which retains slide after slide until filled, enables Kodachrome enthusiasts to carry their slides and viewer around with them. And, when the magnifying unit is set, it permits approximately a three-diameter enlargement.



Compact and sleek in appearance. Dull grey krinkle finish, practically scratch-proof. May be carried in purse or pocket. \$3.95 with bulb and batteries.

NO MORE FOR THE DURATION WHEN LIMITED STOCK IS GONE

Other Gem Viewers: Gemlite Slide-Thru Vest Pocket Kodachrome Viewer, \$1.75 (Deluxe Chrome Model), \$2.50
Gemlite Microlite Pocket Viewer Gift Box, \$1.50.

At Your Dealer's, or Order Direct

AMERICAN BOLEX COMPANY, INC.

155 East 44th Street

New York City

West Coast Representative, Frank A. Emmet Company,
2707 W. Pico Street, Los Angeles, California

Education for the Jungle

Africa's native peoples are to be shown up-to-date news reels of the war, made specially for them so that they can be understood by those to whom a bombing plane and a Bren gun are equally mysterious.

These new pictures are the result of 15 years' study of the African's reactions to films, made by Mr. W. Sellers, M.B.E., of Britain's Colonial Film Unit.

Travelling with a mobile cinema unit from one village in Nigeria and elsewhere to another, Mr. Sellers found the natives baffled by the swiftness of the sequences. Too much was left to be inferred.

The ordinary cinema fan who sees a shot taken on a battleship appreciates that the war is just off the picture. The African has to have this explained to him with views of the sea and the ship.

So too the Allied cause is explained by parable. The film shows a fight to the death between a mongoose and a snake, Mr. Churchill being the mongoose and Hitler the snake. At first the mongoose has a tough time of it, but by biding his time he kills the snake in the end.

A favorite film is "Mr. English at Home," so arranged that Africans can appreciate through their own family lives how white men live.

Today 18 mobile cinema units are touring the African colonies showing to audiences ranging from a few hundred to as many as 15,000. They are staffed by educated native commentators. A complete sound track is difficult because of the variety of languages and dialects which are, however, being gradually introduced.



"See here X29—you'll have to get yourself a priority and buy an Argus."



Army Air Forces Official Photo

From the ground... UP!

WHEN ground crew men of the Army Air Forces swarm over a plane, you know it'll fly when they're through... for they know their job from the ground, up.

In the same way, photographers in the Army Air Forces must know their job. For it's not all aerial work. They must be equal to *any* photographic situation *anywhere*. And in this, as in the photo above, flash gives important help; since flash makes the man behind the camera independent of lighting conditions, day or night.

G-E MAZDA Photoflash lamps are proud that they share

in making many a wartime photo job easier for the armed forces and the press.

Flash in Wartime... In the interest of war production, WPB has limited the sale of photolamps to press and military photographers and those who can extend at least an AA-5 priority. After the war, dependable G-E MAZDA Photolamps to fit every need will again be at your service.

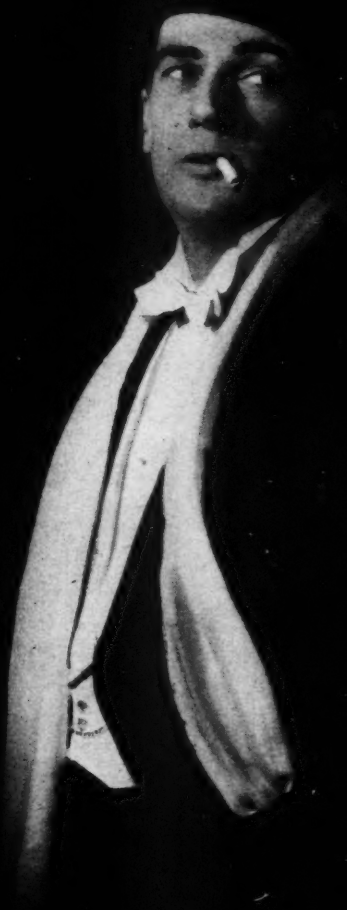
Meantime, if you are an essential flash user, you can help conserve critical materials by using G-E No. 5, No. 11 and SM whenever possible, since these sizes use less material... and meet 95% of photographic needs.



MAZDA Research leads the way


G-E MAZDA PHOTO LAMPS

GENERAL  ELECTRIC

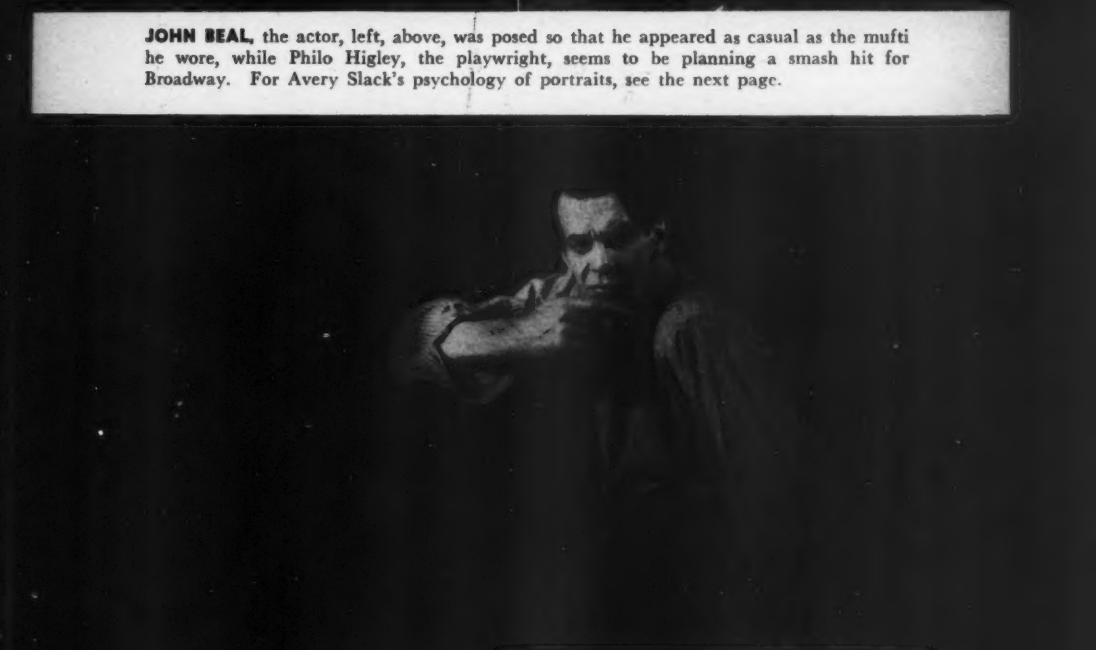


AVERY SLACK'S portrait of Walter Pidgeon is
keynoted by the informal use of the cigarette,
as contrasted with his formal dress.

AVERY SLACK'S MEN "LOOK THE PART"



JOHN BEAL, the actor, left, above, was posed so that he appeared as casual as the mufti he wore, while Philo Higley, the playwright, seems to be planning a smash hit for Broadway. For Avery Slack's psychology of portraits, see the next page.



LINCOLN'S simplicity is the keynote of this characterization of Raymond Massey as he appeared in the Sherwood play.

Men Want to be Themselves in Portraits

By AVERY SLACK

A GENTLEMAN WALKED into the studio one afternoon. He had come rather reluctantly . . . only to please his lady friend who had finally extracted a promise from him that he would have his picture taken. He would much rather have gone to the dentist.

He was a fine type of man. Military in bearing, with character lines deeply etched in his countenance. Approaching what to him must have looked like a seat of torture, he sat down with great apprehension. "I am doing this much against my will," he said, as he straightened his tie for the ordeal to come. . . . "You will be quick, and take but one picture" . . .

But good portraiture, as we know well, seldom materializes from one exposure. Usually, several attempts are made before the photographer breaks through the walls of self-consciousness and finds the genuine personality. Then, he must project the characteristics of that personality with true fidelity through the medium of the camera lens. Otherwise, when the sitting is over, he will have merely a picture of a face on a piece of sensitized paper—without depth, without character.

In photographing women, there is more opportunity, perhaps, for the play of imagination in dramatizing the subject, but the men who parade in front of our lens are equally, if not more vitally, interesting to the camera's eye.

Whether he be a prominent motion-picture star or just plain Bill Hawkins from next door, the male subject will resent anything but the most direct, honest camera treatment. The photographer must watch his technique in front of the camera as well as behind it. There must be absolute simplicity in working, if you want to make your subject feel thoroughly at home, and, unless he is at perfect ease, the results of your sitting may be terrifying to both your subject and you.

In my work with subjects from different

walks of life, I have had the opportunity to study at first hand the little things that are so easily overlooked, but which make for natural ease in working and for better, more natural portraiture.

When your subject is a man who smokes a cigarette or a pipe, the mere fact that he is permitted to do so gives him not only poise and confidence, but interest in the work itself. Then through "rings of smoke" will shine the mood that reflects his personality. Besides putting the subject at ease, the cigarette or pipe will give pictorial and descriptive force.

When George Arliss hurried to my studio on the day he was sailing for England, there were only fifteen minutes allotted for the sitting. The cigarette (and Mr. Arliss smokes a special brand) not only helped here to make an interesting portrait of the great actor, but gave us both a feeling of leisurely time, and enabled us to do more in the short space of time than seemed humanly possible. Fourteen exposures were made in fifteen minutes. Several of these have been reproduced internationally.

A book, a cigarette case, the handle of a cane, or any simple accessory with which the sitter is thoroughly familiar in his daily routine, may become the keynote of the portrait, as well as the means of putting the subject at ease.

A general flow of conversation often-times breaks the monotony of the sitting. Get your subject started on his favorite topic. The more you encourage him to talk, the more natural will be the expressions he gives the little black box.

Keep everything in key with the particular type of man you are photographing. A dignified banker, for instance, does not want to look like a shoe clerk. Let your subject set the tempo and then use your ingenuity in exaggerating slightly the little points which in the finished portrait will emphasize the man's personality.



THE EXPRESSIVE hands, the monocle, and the closed eyelids all contribute to this great portrait of George Arliss.

FRANK ALBERTSON, as the military school cadet, produces this quizzical expression which arouses interest and makes the viewer seek the answer, too.





ONCE YOU TRY copying as a winter sport, you will never again lay aside your camera for several months to wait until summer returns; chances are you'll use your photographic facilities and experience and have a great deal of fun and profit as a result.

Aside from the usual portraiture of family and friends, photographing objects, and working over your negatives, there is a great wealth of material for dark-room work which perhaps you have never thought about. In magazines you may find many pictures which would make your collection of photographs or lantern slides more interesting and outstanding. Copy them. If you are interested in old family portraits, copy them; make an album for them. If you are interested in the clothes or scenes of an older day, copy pictures of

them. Or make lantern slides of these objects. Whether Kodachrome, tinted, or black and white, your slides will take on greater interest for you and your friends. Just look at the picture of Uncle Albert (Fig. 3), holding his hat in such a charming way. We see him on his wedding day, in 1888, in a little village in eastern Pennsylvania. And this old railway train (Fig. 1); it was the first train to run from Philadelphia to West Chester, in 1858. Both of these pictures are copies from old photographs. A year or so ago there appeared in *Life* about sixteen color reproductions of some of the best prints from the famous collection of Currier and Ives, prints of the American Scene made about 1850. These I copied on Kodachrome, greatly enriching my slide collection.

In a short article like this, it would

• HOW TO COPY PRINTS AND TRANSPARENCIES

By I. CLYDE CORNOG,

Randal Morgan Laboratory of Physics, University of Pennsylvania

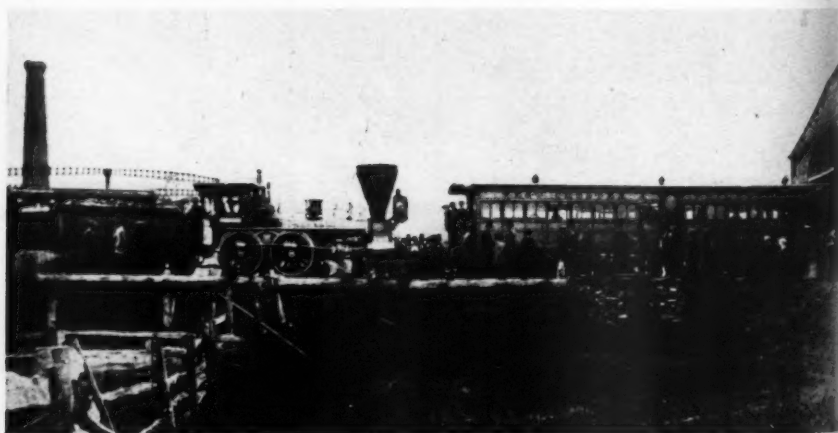


FIG. 1
FIRST TRAIN into West Chester, Pa. Copy print made from an old daguerreotype. This is one of the series of old train pictures that the author made into a slide collection.

be impossible to tell as much as you would like to know about copying. I shall try merely to describe a simple and efficient way to go about copying. There are three essentials by way of assistance. First, you should buy the little booklet entitled "Copying," published by Eastman Kodak Co., which sells for twenty-five cents. The booklet is a mine of specific information. It gives the characteristics of the various film materials which are used, describes suitable developers, and gives a general description of method. If you are interested in making lantern slides, there is a similar booklet entitled "Slides and Transparencies."

Second, you should have a stable support for your camera. A stiff enlarging stand is a good type of support, for it permits the camera to point downward, and also permits easy adjustment of distance. Figure 3 shows a home-made enlarger stand which is also used for copying (and photographing small objects). If your enlarging stand has a tendency to sway or wobble, this defect may be remedied by bringing up a chair until it firmly touches the post. A good tripod is a suitable support, although harder to adjust. If a tripod is used when the camera is to point vertically downward, a tilt-top is a necessity.

Third, you should have a photo-electric exposure meter. Of course, you can do without this item, but you will never know how valuable it is in copying until you have used it and until you know its various possibilities. It serves two functions, both of great importance. It will enable you to determine the proper exposure, and it will enable you to determine when the picture, or drawing, to be copied is evenly illuminated.

Almost any sort of camera may be used, but it is obvious that a camera with ground-glass focusing facilities is desirable, for then the image may be sharply focused and studied in the easiest way, and the size of the image may be readily measured. Ground-glass focusing is greatly facilitated by viewing the image through a magnify-

ing glass. If your camera has no focusing back, use a "portrait lens" (see page 38) and measure the distance to the object in the usual way.

Suppose that we first consider the problem of copying negatives or other transparencies by transmitted light. If you habitually use a 35mm. camera, there is always the necessity for copying transparencies. To make a black and white negative from a Kodachrome transparency you merely illuminate the Kodachrome from behind and copy it. To make a lantern slide from a negative you merely photograph it by transmitted light. There is no difference in the procedure if larger negatives are to be copied, or if a larger camera is to be used.

The general idea involved in illuminating transparencies from behind is illustrated by Fig. 4, and the use of the illuminator is illustrated by Fig. 2. The illuminator shown is a simple box, open at the top. The box is 16 inches high, 14 inches wide and 12 inches deep. In the center of the bottom is placed a 100-watt frosted bulb. The box is painted flat white inside (and dark green is a good serviceable outside color). The door is not shown in the photograph. As may be noted, it is ventilated, but this is not necessary. On the top of this box sits a second smaller box, shown leaning against the larger one. This second box is 4 inches deep, and has an 8"x10" sheet of opal glass in its bottom. When the small box is in position, the opal glass is 10 inches above the 100-watt lamp. On the very top goes the flat lid shown. This lid is painted dull black to cut down reflection, and in it there is a hole over which the transparency lies. When in place, the transparency is about 4 inches above the opal glass.

Placing the transparency at some distance above the opal glass prevents dust particles on the glass from showing up in the final copy. Arranged as described, the box will evenly illuminate a transparency as large as $3\frac{1}{4}" \times 4\frac{1}{4}"$. For larger ones, a different arrangement of lamps would be more desirable, say four

25-watt lamps arranged at the center of the box. While dimensions have been given here, these are of little importance, except that neither lamp nor transparency should be too close to the opal diffusing glass.

The transparency to be copied is placed in a holder (Fig. 2, on lid) and masked so that unwanted light is reduced to a minimum. An ordinary pair of flat glass plates serves to keep the transparency flat, but in some cases, such as making negatives from 35mm. Kodachromes, it seems desirable to support the transparency without glass plates. This may be easily done by cutting rectangular holes slightly smaller than the transparency in each of two metal plates, thus enabling the transparency to be supported by its edges between the plates.

When copying Kodachromes, panchromatic film material must be used. Copies so made are usually quite contrasty, so that it is desirable to use a combination of sensitive material and developer which will minimize this in so far as possible. If the copy is made on 35mm. film, there is also the problem of getting fine grain. Considering the simplicity of the method, all of these items are handled with a reasonable degree of satisfaction if one uses a panchromatic fine-grain emulsion, such as Panatomic X, and a fine-grain soft-working developer, such as DK-20.

If a black and white negative is to be copied, positive film, with DK-20 developer, will yield satisfactory results as to contrast and grain.

Copying a print, or photograph, is a more difficult matter than transparency copying. Limiting the discussion to copying continuous tone subjects, such as photographs, black and white prints, paintings, etc., the end product is to be a negative which contains all the tone gradations of the original. The difficulties involve proper illumination, undesirable reflections, choice of filters when filters are necessary, choice of sensitive material and developer, faded photographs, marred surfaces, and so forth. Here are a few simple

directions, as a starter. For a more detailed discussion, see the booklet already mentioned.

The general method of arranging camera, print to be copied, and lights, is shown in Fig. 5. Two items are of primary importance: the adjustment of the camera, and the arrangement of the lights. The camera is placed so that the focusing ground-glass is parallel to the print being copied. The lamps may be arranged so that the four distances marked (a) are all the same, then adjusted so that their axes (PL) pass through the center of the print, as shown. This arrangement is called "45-degree lighting." The lamps should be alike (Photoflood or Mazda), directed at the same angle (45 degrees), and are at the same distance from the print. Two lamps as close as 40 inches will evenly illuminate a small print; but if the print is large, the lamps should be farther away.

In Fig. 5, the camera is shown as used when the print to be copied lies on the floor, or on the base of an enlarging stand. If the figure is turned upside down, it represents a top view when the print to be copied is fixed on a wall, the camera being then supported as usual on a tripod.

To test the uniformity of illumination, the exposure meter is held far enough above the surface (3 or 4 inches) so that its shadows, caused by the two lamps, do not come within its field of view. It is then moved from point to point over the print, always at the same distance. Uniformity of meter reading indicates uniformity of illumination. If the meter shows a much higher reading when over one side of the print being copied, it indicates that the illumination there is greater than at other places, and the lamps must be suitably re-adjusted.

So far as illumination is concerned, there is one other matter which is of great importance, viz., keeping unwanted light from the sensitive film. Suppose that the print to be copied (Fig. 5) lies on a large sheet of white cardboard. Light from a lamp falls on the print at some point, such as (b), and is diffusely reflected, as shown

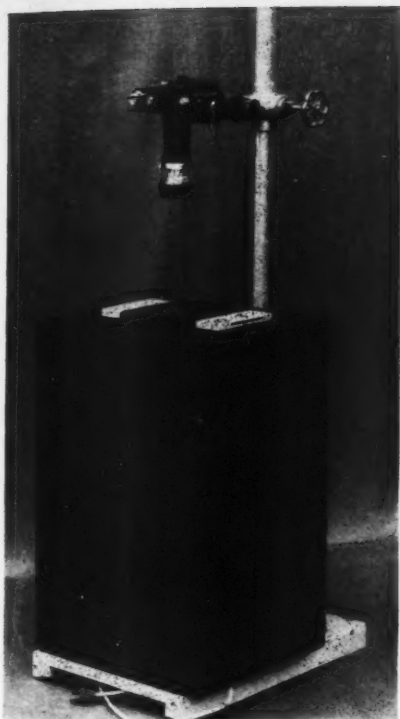


FIG. 2



FIG. 4
ILLUMINATOR for copying transparencies. In the photograph above, the illuminator has been taken apart to show construction. Ventilator holes, with light trap, have been bored near top of large light box.

IN **FIGURE 2** at the left, the illuminator is shown assembled with the camera in operating position. The gas pipe and valve assembly make a sturdy stand.



UNCLE ALBERT, a copy from old print. FIG. 3

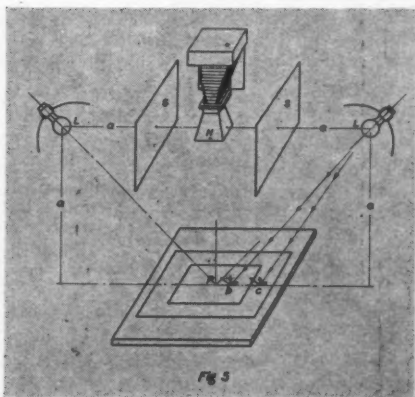


FIG. 5
DIAGRAMATIC arrangement of camera, lights, shields and copy. The large lens shield "H" can be made from cardboard or metal.

Most of this light which falls on the camera lens eventually helps to form the image desired. But light also strikes the white cardboard on which the print lies, say at some point (c), and is also diffusely reflected, some of it falling on the lens. Even if the image of the print itself completely fills the ground glass, some of this light reflected from the white surface enters the camera. It does not reach the ground-glass or sensitive film as part of the image, useful light, but it does get there by reflection from the internal surfaces of the lens and camera. The result is that the exposure of the film is caused by the light which forms the image and also by light which produces an over-all "fog." In general, the presence of this unwanted light causes the resulting negative to lack brilliance. The remedy is simple. The print only should reflect light into the lens, and this may be accomplished by placing it on a large background of rough black cloth.

The direct light from the lamps should be prevented from falling on the lens by means of large shields (S) (cardboard), as shown in Fig. 5. In all cases the lens should be shielded by a large lens hood (H), as shown. The lens hood protects the lens from unwanted reflected light, no matter where it comes from.

Keep in mind that if Kodachrome is used, Photoflood lamps of proper Kelvin temperature are required. This is due to the color characteristics of the sensitive material itself. A Photoflood lamp must also be used in the illuminator box described above if a Kodachrome transparency is to be copied on Kodachrome. With other sensitive materials, either Photoflood or Mazda lamps may be used.

Suppose now that we have our apparatus all ready for the actual exposure. What length of exposure shall we use? How shall we determine this with sufficient accuracy? This, of course, is the hardest part of the job, or would be if we did not have such efficient assistance as an exposure meter and carefully determined characteristics of the sensitive material.

If we are copying a transparency, using

a Weston meter, we hold the meter above the transparency at a distance approximately equal to the long dimension of the transparency. The corresponding meter reading is used as described below.

If we are copying a print, we may proceed in the manner just described, or we may take readings at different places on the print, and use the average of these for our final meter reading. The meter in this case is used in the same way as for an object, or a scene.

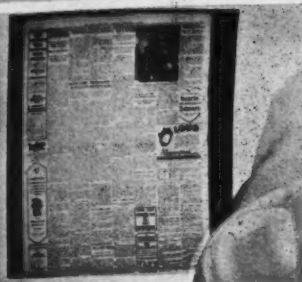
Having determined the meter reading, we read from the instrument dial the exposure time corresponding to the lens stop selected. This, however, will not be the proper exposure time to use, because it is based on the assumption that the object is at a considerable distance from the lens, while in copying, the object is quite close to the lens. Some compensation is necessary if the exposure is to be the proper one. Since space is not available here for a discussion of the reasons involved, I shall merely state how to make this compensation, how to determine the proper time from the meter dial exposure data.

To determine the proper exposure time, meter dial reading is multiplied by the quantity $[(m+1)^2]$, where (m) is the number of times the image is magnified. To determine the value of (m) the length of the image on the ground-glass is measured with a scale and divided by the corresponding length on the print being copied.

Suppose our meter calls for 2 seconds at f11, the length of the image on the ground-glass is 3 inches, and the corresponding length on the print is 18 inches; then the magnification (m) is 3 divided by 18, which is $1/6$, or .17. It follows that (m+1) is 1.17, and $[(m+1)^2]$ is approximately 1.5. The proper exposure time is therefore 1.5×2 seconds, or 3 seconds, at f11, using the markings on the lens.

After a fair trial, you will find that the above procedure is very simple and satisfactory, but if you don't want to do it in this way, there are two other possibilities.

(Continued on page 97)



NEWSPAPER printed on Lilliputian Press? No, this miniature was reduced in size by photography and is a positive on micro-film.



READING MICRO-FILM newspaper. "Pages are turned" by operating knob at left to change negatives.



THIS DEVICE, with camera at the top and built-in illumination, copies thirty-five pages in a minute.

• NEWSPAPER ON FILM

By ANDREW M. LAVISH

GET YOUR MORNING PAPER. Read the latest news." Such a familiar call is not likely to startle you. But, upon a closer look at the newsboy, you may be astounded to see him offering you a strip of negatives the length of a 36-exposure roll of 35mm. film.

Fantastic? No, only in minor details. It's unlikely that "newspapers on film" will be sold at street corners. But The New York Times has an edition on film that is available to subscribers. The cost, \$175 a year, is prohibitive for most of us. However, this edition is invaluable to libraries and to others desiring a more permanent form of newspaper that will not deteriorate with usage as does paper.

Special micro-film units with built-in illumination and camera somewhat like those for V-mail are used to quickly reduce the newspapers from their standard

size of 17x23 inches to a double frame 35mm. film.

About 800 pages, or almost a month's issue of most papers, can be photographed on a 100-foot roll of 35mm. film. This makes a package about twice the size of an ordinary pack of cigarettes and a tremendous saving in storage space. Bound volumes of The New York Times, covering the four years of World War I, required 59 cubic feet of space as compared to 1 1/8 cubic feet for micro-film.

Too, it's much easier on the reader. A bound volume of newspapers weighs seventeen pounds and is usually unmanageable. It is much simpler to insert a roll of film, 3-1/16 inches in diameter by 1 3/8 inches in thickness, into a projector reader. These projector readers are usually made with a translucent screen mounted in a shadow box for daylight reading.

★ DIG IN YOUR NEGATIVE FILE

By WILL WHITMORE

YOU CAN STILL *make* any type of picture you want to. If you have ever *taken* pictures of trains, airports, airplanes, skyscrapers, boats and harbors, and any of the other things and places that are now tabooed because of the war, then you can still make the pictures.

In negative files there are plenty of pictures which were made in the past that would be banned today, yet there is no law against making new pictures from those old negatives.

"But why should I spend time and paper making prints from old negatives?" you may ask. The best answer to that question is that you will be pleasantly surprised with the results and more than repaid for the trouble of going through them.

LOWER NEW YORK from the RCA tower, a picture the photographer can no longer take, but the negative file yields it gladly.

Not long ago I was deprived of the use of my camera for a long period. It was in the summer time, and I fretted because I could not take the pictures I had been planning all through the long winter months. For a while I did nothing but bemoan my fate, but it finally dawned on me that there was nothing wrong with my enlarger and that I had scads of negatives, many of which I had never printed much less attempted to make into salon prints.

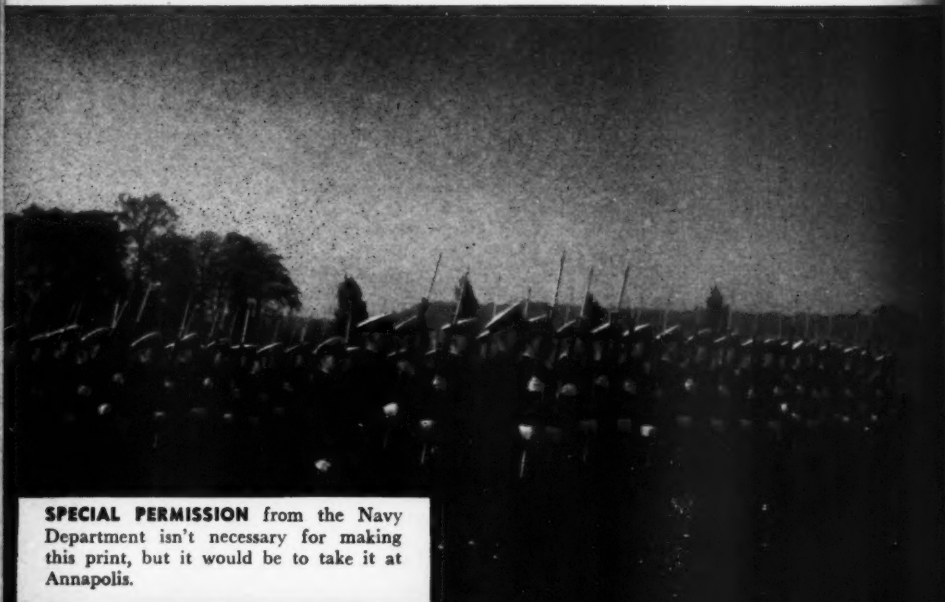
Out came my negative files. I spent a week going over each negative individually, laying aside every one which seemed to have possibilities. I did a further



BERMUDA was a pleasure isle, the boat had not been sunk. The negative had lain forgotten in Will Whitmore's negative file.



SNOW SCENES like this are not forbidden now; but if they can be made from unused negatives, they save film.



SPECIAL PERMISSION from the Navy Department isn't necessary for making this print, but it would be to take it at Annapolis.

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culling job by running this group through the enlarger, examining each one closely to discover possibilities which I had overlooked originally. By blowing up the negatives as far as my enlarger would permit, I was better able to judge the negative and to determine how to use portions of it by cropping. A good pair of large cropping "Ls" cut out of cardboard came in handy here. This process narrowed the pile to about 10 negatives. I was surprised to see how good they were, and almost ashamed that I had not seen their picture possibilities before. One was a picture of Lower New York from the roof of the RCA Building, and the other pictures shown here.

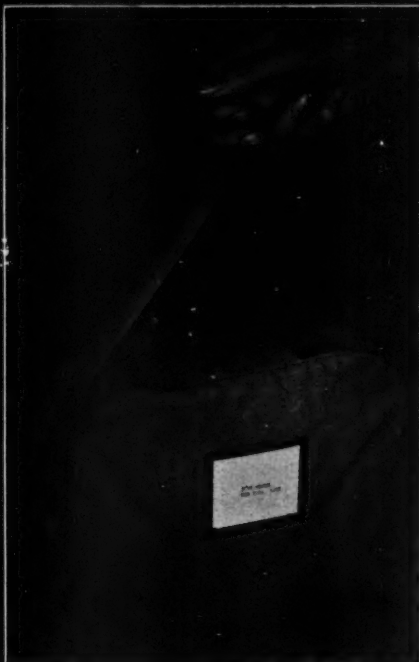
The chances are some of the best pictures you will ever make lie forgotten right now in your old photographic files, provided, of course, that you get them out and devote to them all the care and darkroom skill you now possess and which you probably didn't have when you exposed the negative. It's like hunting for and finding buried treasure.



"SPECTACULARS" don't turn Broadway night into day anymore. A forgotten negative will.

A POLICEMAN would spoil this shot, but he can't object to a print from an old negative.





A SHOULDER STRAP starting from the bottom of the bag and stitched firmly up to the zipper enables the user to have both hands free for action. A celluloid pocket holds the owner's address.



Make a PHOTOGRAPHIC GADGET BAG

By MILLA G. CALLAHAN

SOON AFTER the amateur photographer buys his second filter, he feels the need of a gadget bag. Even if he takes few accessories along with the camera, it's a problem to keep them together and protected from dust and moisture.

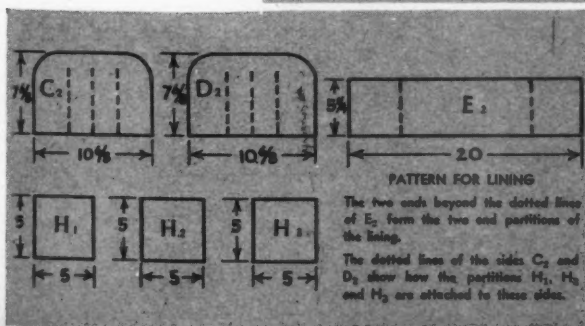
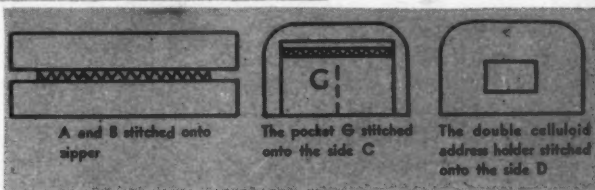
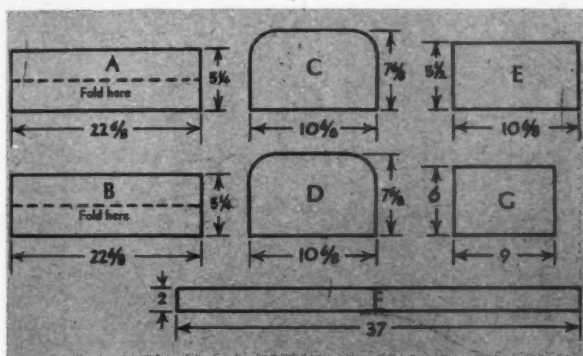
When the following construction sequence is used, the gadget bag can be put together in a few hours. Because rummaging into a deep bag is exasperating and inconvenient, this bag is designed to be shallow but roomy; however, the plans can be adapted to individual needs.

First the pieces A, B, C, D, E, F, and G are cut out of medium heavy, waterproof canvas in dimensions depending on the size of the bag desired. Stitch the folded sides of A and B over the cloth tape of a large zipper to form the top and narrow sides of the gadget bag. The edges of strap F are overlapped with the top edge turned under and stitched. Stitch the strap over the gap between A and B so that it covers these pieces from the bottom edge up to the zipper. Next, attach the pocket G to side C. The upper tape of a zipper the width of the pocket is stitched down to the bag after the other edge of the tape is sewed to the pocket. Stitch the two sides of the pocket to the bag. The bottom of the pocket will be closed when bottom of the bag, E, is stitched in place. Sides C and D are then sewed to the top of the gadget bag, A and B. Stitch the base E to open edges of A, B, C, D.

A piece of fibreboard fitted into the bottom of the bag and held in place by large semi-spherical-headed tacks at each corner will keep a full bag from sagging. The tacks not only keep the bag clean but prevent excessive wear on the canvas bottom.

Bias binding may be used on the lining so the edges do not fray. After the edges of H_{1,2,3} and E₂ are machine stitched to the lining C₂ and D₂, the tops of C₂ and D₂ are sewed by hand to the corresponding inside seams of bag.

THE ZIPPER POCKET makes a holder for cut film plates if stitched down the middle as in the photograph left above. This is also a place for gadgets that are used frequently. The lining, above, right, provides partitions for separating other equipment.



THE ART OF POETIC ACCIDENT

THE PHOTOGRAPHS OF CARTIER-BRESSON AND HELEN LEVITT



By James T. Soby

ALMOST AS SOON as men recovered from the miracle of photography's discovery, they began simultaneously to complicate and to simplify photographic apparatus. By the latter part of the nineteenth century, photographic equipment ran from one extreme to the other, from a camera big as a truck to one contained within a cigar holder, its film developed by the smoke inhaled. The size and shape of cameras determined or depended upon differing theories as to what photography should do and wherein it was beautiful.

At one extreme there was the view camera. It was photography's formal instrument of expression, and its aesthetic aim was to record relatively fixed objects or scenes with forethought and the maximum technical dexterity. The other extreme was the hand camera; its aesthetic was concerned with spontaneity and motion, with the recording of the unforeseen and the quick. In skilled hands each type of camera was made to do the work of the other.

NEW YORK . . . HARLEM has been the scene of many of Helen Levitt's pictures. Here the effect of the city on its children is most acute.



POVERTY AND SQUALOR have failed to depress these children in their imaginative play behind weird, almost savage masks.



CARTIER saw in these bag-cleaners a surrealistic commentary on the working conditions of men who had no skill and little chance of more than drab existence.

Yet the distinction between the two types of camera and their aesthetic functions remained basically positive. It remains so today, as may be seen by comparing the photographs of the so-called "documentary" group with those of the Frenchman, Henri Cartier (Cartier-Bresson), and the American, Helen Levitt.

During the late 1920's, many of the best American professional photographers, whether "documentary" or not, were using the view camera exclusively. These photographers necessarily chose static subject matter, and they chose it with an eye to inherent importance, historical, sociological or purely aesthetic. They did a great deal to restore the integrity of the photographic medium and to offset both the artiness of earlier professional photography and the thoughtlessness of most contemporary amateur work. But they did tend to underrate the potentialities of the hand camera and of an approach peculiar

to it. Lately, there have been signs of a broadening of their conception. Edward Weston in this country and Cecil Beaton in England—to name two proponents of the view camera having opposite faiths as to subject matter—have turned to the hand camera with a new respect. Yet the full impact of a changing aesthetic in photography is not to be felt in their work. Rather it is to be felt most clearly in the prints of photographers who have never believed in the view camera approach, notably in the prints of Henri Cartier and Helen Levitt.

Both Cartier-Bresson and Helen Levitt have taken nearly all their photographs with a miniature camera using 35mm. film. At every stage of the photographic procedure they have moved in a direction absolutely counter to that of the view camera men. To begin with, their choice of subject has been entirely different in inspiration. Whereas the view camera pho-



HENRI CARTIER (CARTIER-BRESSON)

—The great French photographer, Henri Cartier, was born in Normandy in 1912. He started to take photographs with a Leica when he was 19.

His intellectual curiosity led him to Africa in 1932 where he lived among various tribes for a year. Unfortunately, all of his negatives of this period were lost.

In 1933 he returned to France where he became acquainted with Berman, Breton, Dali, Tchelicew and others in the neo-romantic and surrealist circles in Paris. Their influence led him to use the miniature camera as an instrument for discovering accidental composition; he developed the split second use of photography to catch uncanny and significant moments, which was described by Peter Lloyd as "anti-graphic" in the folder announcing the

Cartier one-man show held that year at the Julien Levy Galleries, New York. Toward the end of the year he returned to Europe, with the Spanish poet Alberti, and visited Seville and Andalusia.

In 1934 he was part of a movie expedition which went to Mexico and disbanded. He remained in Mexico for about a year, living in Mexico City and in many remote villages, where many of his most unusual photographs were made.

In 1935 he came to New York, and after spending some time in Harlem decided to make a trip through the South. A year later he returned to France and soon went to Spain. There he made a movie of hospitals which was shown in America as "Return to Life". It was at this time that he decided to drop the name Bresson. He prefers to be known simply as Henri Cartier.

In 1937 he became assistant to Jean Renoir, the son of the painter and director of "Grand Illusion". He was also staff photographer for a Paris newspaper, and as such covered the Coronation in London.

When the war broke out Henri Cartier entered the French Army, and the last word that his friends in America have had from him was after he was taken prisoner by the Germans in 1940.

His influence on Helen Levitt is unmistakable.

tographers often selected their subjects well in advance of recording them, Cartier and Helen Levitt have walked the city streets with no idea of what they were about to photograph except within broad limits. Whereas the view cameramen tried to photograph their subjects ideally even if they came upon them unexpectedly, Cartier and Helen Levitt have known that any scene likely to appeal to them would retain its form and content for only a split second. They consequently confined themselves to snapshots and used cameras with lenses of such short focal length that problems of focus

became minor. Indeed, Cartier is said not to have focused his camera at all for individual scenes, but to have set its scale at 25 or 50 feet, depending upon the width of the street through which he was walking. The Cartier-Levitt photography is an art of poetic accident, the recording of subject matter at a moment of great emotional intensity. The two photographers depend on their highly sensitive, intuitive vision to reveal this moment to them, and record it instantly, with the minimum of technical calculation. And whereas the "documentary" photographers had abjured enlargement and cropping, Henri Cartier and Helen Levitt have felt free to change the size, shape and in-

**PHOTOGRAPH ABOVE OF HENRI CARTIER
BY GEORGE PLATT LYNES**

clusiveness of their prints.

It is no injustice to Miss Levitt's brilliant photographs to say that they are inspired by the work of Cartier. She is the first to say so herself. Furthermore, her technical training was received from Walker Evans who was enormously moved by Cartier's first American exhibition in 1933 and was one of the first "documentary" photographers to turn to the miniature camera. Cartier's own photography

(Continued on page 95)



HELEN LEVITT. The Museum of Modern Art, New York, feels that Miss Levitt's photographs are important enough to deserve a one-man show. March 1943 will be the date of the opening.

Miss Levitt was born in New York and started photographing children and children's games in 1936, using a Leica, occasionally borrowing a Speed Graphic for flash interior work.

In 1941 she visited Mexico and spent five months, photographing activity in the suburb of Tacubaya. She returned to the United States with a remarkable series of photographs. For the future she plans to continue her series on children with particular accent on their life in the home and in rural communities.

Miss Levitt, being a particularly sensitive and modest person, prefers not to have her own photograph published, rather to let her photographs portray her, as they must, inexorably, for any serious photographer.

We ask our readers not to judge Miss Levitt's photographs in terms of their own work or the work of any other photographer they have ever seen. Try to discover the intangible qualities and poignant image of humanity which she has caught with her lens.

PHOTO DOCUMENTATION, whether Levitt's, left, or Cartier's below, seeks to give an honest, visual record of people and the conditions under which they live.





COVER PARADE

By JOSEPH WECHSBERG

"What's our next cover going to be?" is the constant question every magazine editor has plaguing his waking hours—and some of his sleeping ones too. A good cover is the magazine's best salesman. No wonder editors consider only the best single pictures good enough for a cover and spend long, dreary hours in selecting one that has reader appeal.

MINICAM PHOTOGRAPHY has assigned Joseph Wechsberg to "cover the covers" of America's national magazines. We hope that this review will give you new ideas, suggestions, and advice, if you hope to shoot a cover Kodachrome or black and white. If you enjoy looking at covers for their own sake, these are our critic's ideas of their merits and shortcomings.

WHAT MAKES a good cover? Condensing the long-drawn, wise and hard answers of art editors and experts, the answer is, "The one that sells the magazine."

A cover should attract the interest of passersby and excite their curiosity sufficiently to make them want to buy the magazine and look inside.

A good cover usually carries no caption. It must be so strong and striking that it speaks for itself. It must have all the punch and reader appeal that can be put into a single picture. Unlike a series of pictures inside a book, where a story is told in a number of pictures; a cover must tell the whole story in one picture.

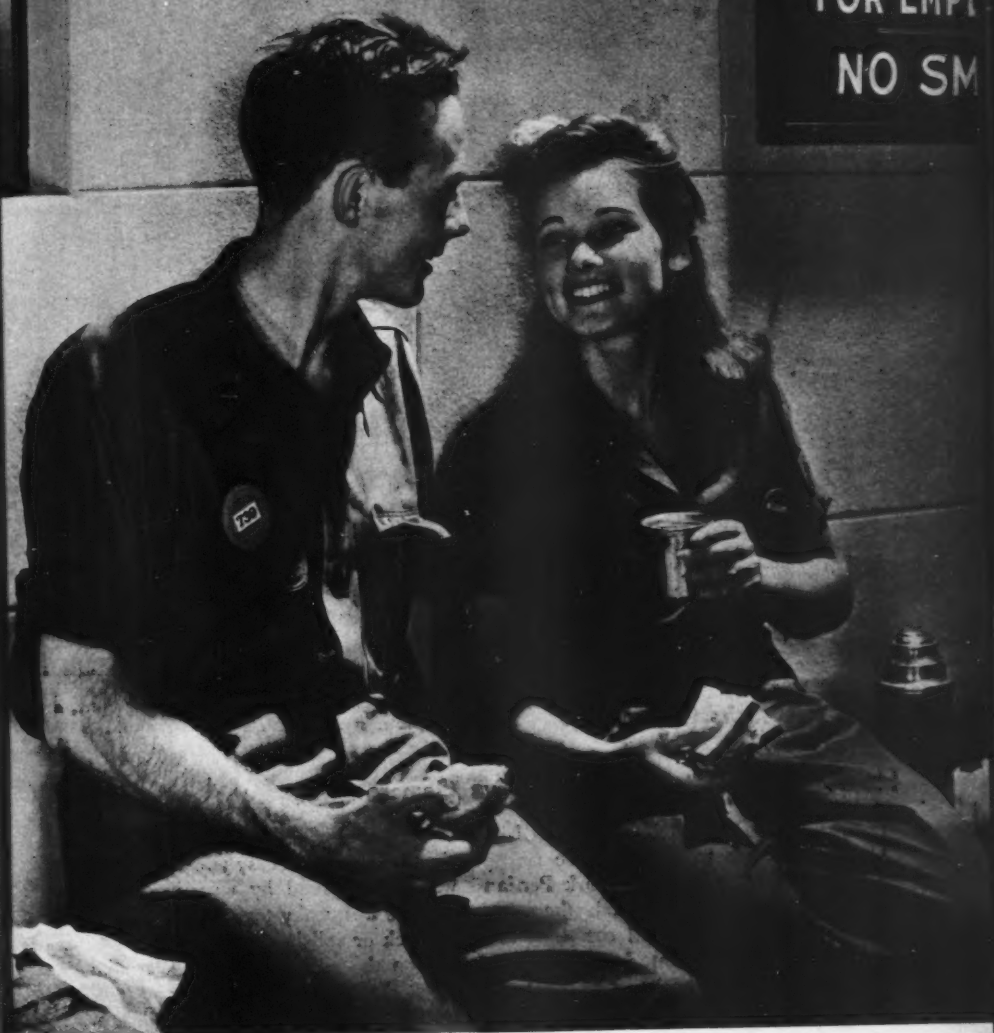
In the case of *This Week*, a newspaper

supplement, published by the New York *Herald-Tribune* and distributed nationally through many independent newspapers, with one of the country's largest circulations, the cover must appeal to all classes of people everywhere in America.

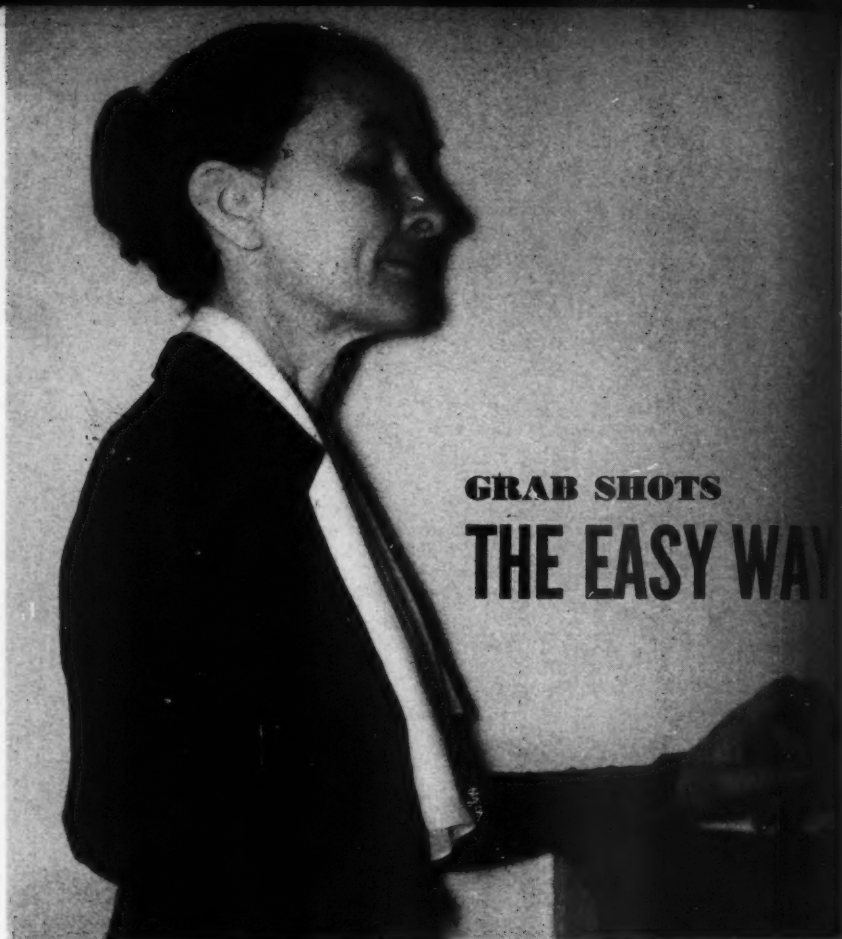
The cover on the issue of October 4, 1942, a Kodachrome, selected by the editors of *This Week* as one of the year's most successful (and originally printed in four colors), has that universal appeal. It covers the year's most important news story: the war effort which is of vital importance to every man, woman, and child.

Photographically, the picture is striking, illustrative, full of tonal contrast, and yet well-balanced. Not an inch of space on the cover (which is worth many thousands of dollars) has been wasted. The message of the cover is clear: America needs healthy men and women for its war effort. We need youth, strength, sunshine, and wholesome food to win this war.

The subject has not been glamorized. Realism is the keynote. The sunlight, falling in from high above the girl's nose is not flattering to her face, but it creates a sound, healthy quality which is imperative. It was a fine point to show the man's profile thus putting the emphasis on the girl's face; as a rule, girls are better to look at and have more reader appeal than men. (Sorry, fellows)



THE KODACHROME for this cover was made by Henry Bluestone of Pagano, Incorporated, New York City. Floodlights totaling 8,000 watts were used on the right hand side of the camera. On the left 9,000 watts warmed the set-up. The 4,000 watt flood that provided the sunny effect was close in on the right and about six feet above the two models. Kodachrome Type B was used at 1/5th second, f11.



GRAB SHOTS THE EASY WAY

By Georgia Engelhard

GEORGIA O'KEEFE, the famous painter, a portrait made with a Reflex Brownie.

How An Expert Uses An Inexpensive Camera

MY RED COCKER SPANIEL is very photogenic, and he has a friend, a beautiful dark Persian cat. I decided to photograph them together; combined dog and cat shots are unusual and salable material. So I took the two animals into the studio, set up lights and started to shoot, using a Thornton Pickard Ruby Reflex with an *f*2.5 Cooke lens with flood lights and a B & J Press camera with multiple flash.

I soon discovered that I needed an assistant to pose the animals for me as I was kept busy enough adjusting lights and

camera and changing flash bulbs. Even then it was not an easy job. When the dog was nicely posed by tempting him with food or a squeaky toy, the cat would turn its back or roll in the catnip that we had put on the posing bench to keep him interested. If I used flood lights, the dog would pant and look dishevelled, while the cat, soothed by the heat, would get sleepy.

And every time that the animals *were* momentarily in a good position I was busy focusing, cocking the shutter or burning my fingers in my haste to change large,



"BIDING THEIR TIME." The small, light, inexpensive Brownie is ideal for use in crowds, such as mill around at a circus or a parade.



FOR THE boys in service an informal "grab" shot in the home, such as the one at the lower left, is a "natural" to pep up a weekly letter.

FASHION SHOW, below, is the kind of a "grab" shot that can be taken most easily with a simple camera. Fumbling with a big camera might distract the animals or make the exposure too late for the desired expression.





THE LENS of an inexpensive camera does not cut as sharp a negative as an Ektar, but the softer, more diffused effect is often preferred for portraits of people of middle age.

hot flash bulbs. I wasted time, patience, and expensive 4x5 film. All I got was a couple fair shots; true, they were whip sharp and well lighted, but the cat and dog looked utterly bored or posed.

The next time that my friend came to help me with my menagerie, he presented me with a Reflex Brownie with flash attachment and laughingly said: "Here, try this, and see if you can do any better." I was amused and thought that he was joking, but decided to accept his challenge.

And believe it or not, I got my shots, of which "Fashion Show" is one. My friend had put the cat up on the end of the bench and was about to place the dog next to

him, when the cat decided to go for a stroll. The dog, fascinated by the cat's motions, sat on the floor gazing up at him. Here was my chance; I rushed to the opposite end of the bench and shot with the Brownie. No focusing, no figuring of exposure, no time consumed changing large bulbs. All that I had to do was to put a midget bulb in the reflector, compose my picture in the ground glass on the top of the camera and shoot. Here I made a picture with action, interest and spontaneity—something that I might never be able to duplicate, and one which I might never have gotten with a camera requiring various adjustments. For with "grab"

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FRITZL, a wire-haired dachshund who was extremely camera shy. Since there was no adjustment of focus, speed nor aperture to make on the Flash Brownie, his characteristic, gnomish expression was captured before he knew a picture was being taken.

shots it is the split second required to rack the camera into focus which may mean you have lost the picture.

Reflex Brownies and similar cameras are still obtainable at many camera, drug or sporting goods stores for about \$8.00, which includes the easily adjustable flash attachment and batteries. The camera is nicely designed and quite good looking, resembling a Rolleiflex and much more streamlined than the old box-type camera. It is equipped with a simple meniscus lens with self-cocking shutter. Although not corrected for long range shots, this lens is perfectly adequate for middle range and close-ups. It is by no means as sharp as my Zeiss Tessar or Cooke, and yet I have been able to enlarge some of the little negatives to 11x14 and a good many to 8x10 without too much loss of definition.

Cameras of this type usually have a fixed focus and shoot at f11-1/35 when

used without flash attachment. With flash, corresponding to the "open flash" in professional cameras, they synchronize at about a 200th of a second which enables you to stop motion on even fairly active subjects. An automatic flash bulb ejector on the reflector prevents burning your fingers when removing the still hot bulb and also makes for faster bulb replacement, which is important in shots where split second work is essential. In order to step up my efficiency and speed in shooting, I always eject the used bulb as soon as the exposure is made and replace it with a fresh one so that I will be ready for the next pose. Altogether, the lack of adjustable factors makes the Brownie ideal.

I have used this simple camera for both animal studies and portraiture of people and found that it permits me to get natural unaffected portraits and appealing animal shots. When a camera of this type is picked up, it is ready for action.

● BASIC LENS FACTS

INTERESTING PHOTO DEVICES USING INEXPENSIVE LENSES

BY TRACY DIERS

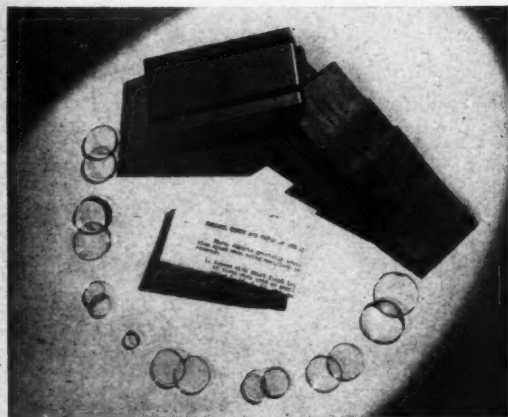


FIG. 1

THE ASSORTMENT of experimental lenses which can be obtained for \$1.50, complete. The instructions tell how to make such photographic and optical gadgets as a Kodachrome viewer, a telescope and a focus magnifier.

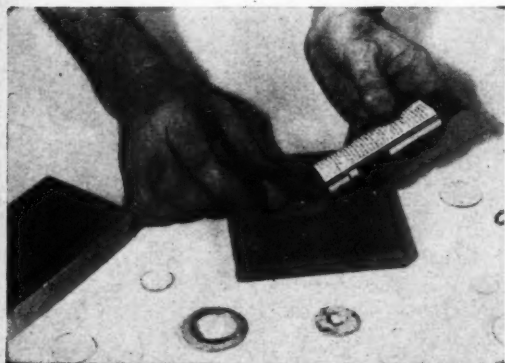


FIG. 2

IN PLACE OF the metal flanges that are used in manufacturers' mounting of lenses, a simple substitute for the amateur is china glue or plastic wood collars built up to fit the tubes into which the lens is to be mounted.

FOR MOST OF US lenses have been something that meant fifty bucks difference in the price of cameras. The seller of said lens wasn't able to say exactly why there was so much difference in price, except that one lens was "much finer." Now, with simple lenses of different types we are able to get down to brass tacks and see what happens.

It is possible to get a whole set of experimental lenses for a nominal price, and \$1.60 really is a nominal price when you take into consideration the fact that you get 15 lenses of all conceivable focal lengths to play around with. This lens set (Fig. 1) has been made possible by the Edmund Salvage Co. of Audubon, New Jersey.

With these lenses you can make an 8 power telescope, a $3\frac{1}{2}$ power telescope, a Kodachrome viewer, a telephoto lens, a portrait attachment lens, a lens for ultra close up shots, a magnifying lens and many other devices.

Let's assume you already have a set of lenses and are ready to start. The first thing to know is how to mount the lenses since certain objects require mounted lenses.

Plastic wood is one of the best mountants, and china cement can be used. Lay the lens that is to be mounted down on a sheet of thin paper. Build up a wall of plastic wood or china cement around the circumference of the lens as Figure 2 shows. Let this dry overnight and remove the paper with water. The outside diameter should be made a little larger than actually needed since shrinkage takes place. When the paper has been removed, the lens is ready to be used.



FIG. 3
A PORTRAIT LENS included in the assortment allows the portrait area of the average camera negative, above, to be increased for a dramatic close, shown at the right.



FIG. 4

Many cameras do not permit the user to go any closer than five feet. To make closeup portraits, a portrait attachment is necessary and one of the lenses in this set can be used for that. The 393 mm. lens will be the best for ordinary portrait work.

For the first trial it will be necessary to use a ground glass (Fig. 5) for making measurements. After these measurements have once been made, it is a simple matter to set the camera at the proper focusing distance and measure to the model with a tape measure.

The camera is set on a firm support and the lens moved out to the infinity mark. With the 393mm. lens in place over the camera lens you will be able to work at about twenty inches from the model with the camera set at infinity. As the camera bed is moved in, it becomes possible to work at greater distances. Make a series of marks on the camera bed and a scale something like this:

Infinity—Mark at 20 inches.

Mark No. 1—Work at 28 inches.

Mark No. 2—Work at 35 inches.



FIG. 5
IF YOUR CAMERA does not have a focusing back, a piece of wax paper or ground glass can be attached to the camera back in the film area for close-up focusing.

And continue with these marks.

Figures 3 and 4 will give you a good idea of the advantage of using the portrait

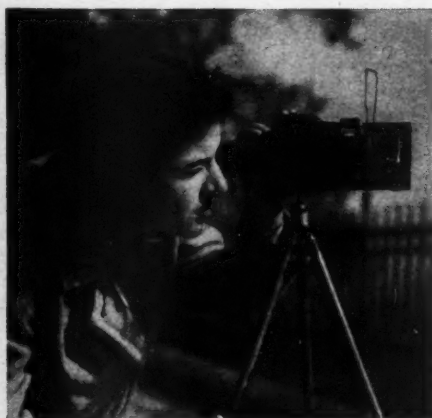


FIG. 6
USING THE FOCUS magnifier on a ground glass back camera. It can also be used on reflex cameras.

AN EIGHT and three and a half power telescope made from the lens set.

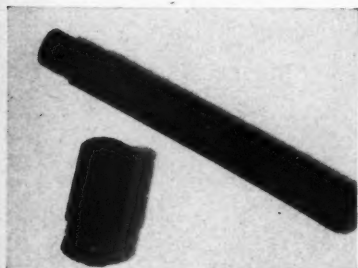


FIG. 8



FIG. 7

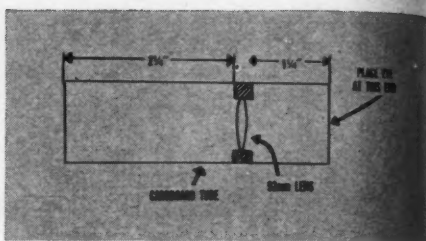


FIG. 9
CONSTRUCTION details of the focus magnifier, an aid to sharp pictures that is too little used. The cardboard tube is a mailing tube that can be obtained at a stationery store.

attachment. After the various distances have been worked out, then either use a tape measure or a string with knots tied in at the proper distances. The portrait lens may be attached to the camera by a filter holder or by making a cardboard tube to attach to the lens of the camera.

The stronger the magnifying power of the supplementary lens the closer you can go to the object being photographed. Ultra closeup shots can be made very easily if the 26mm. lens is used as the auxiliary lens in front of your regular camera lens. Focusing will now be very critical and it is strongly recommended that you use only the center portion of the negative.

When a ground glass camera is being focused, a magnifier is always a helpful gadget for sharper pictures. The 92 or the 26mm. focal length lenses are the ones most generally used for this purpose (Fig.

CROSS SECTION showing the construction of the 8 power telescope. A coat of black lacquer gives the mailing tubes a waterproof surface and a finished look.

FIG. 10

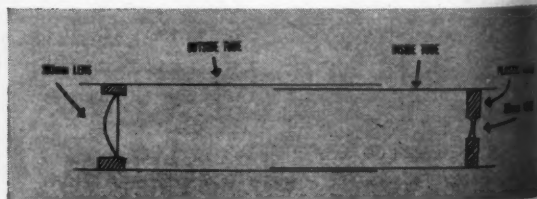




FIG. 11

TELESCOPES lead to telephoto lens. Above the photo of a squirrel through the telephoto-attachment shown below. With this lens as with the expensive telephoto lenses it is a good idea to stop down the diaphragm as much as the prevailing light will allow.

FIG. 13



FIG. 12

SPREAD of camera field of view before the telephoto-attachment was added.

TELEPHOTO lens as shown at right has power of two. It is attached to the camera with scotch tape.

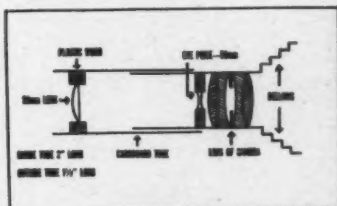


FIG. 14

6). Just mount the lens in a cardboard tube at the proper distance. Figure 9 shows the distances suggested for this device.

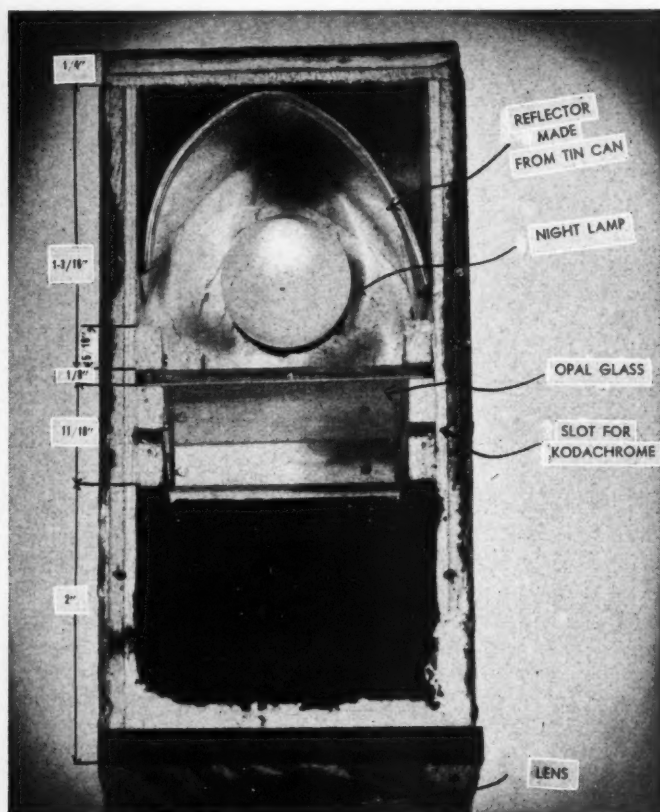
If you work with a reflex camera, you can magnify the image on the ground glass by suspending one of these lenses on a wire form above the ground glass at the proper distance.

A practical telescope having a magnifying power of 8 is fine for plane spotting. First get two cardboard tubes. One should be about 11" and the other about 6." The six-inch one should slide in the larger one easily and snugly. Paint them both black and mount a convex 393mm. lens in the large tube and a 50mm. lens in the small tube as Figure 10 shows.

A three-and-one-half power telescope can also be made in the same way. Use

a 9" and a 5" piece of tubing, but for the eyepiece use a 115mm. lens. Both of these telescopes are shown in Figure 7.

A telescope can be attached to the lens of a camera to make a telephoto lens, approximately two power. The lenses to use are the 50 mm. which is the eyepiece and the 92mm. lens which is the objective. Mount both lenses in plastic wood and then procure a 2" piece of cardboard tubing which will fit over your camera lens. Cement the 50mm. lens in this piece so that it fits snugly against your camera lens. Now cement the 92mm. lens in a 1½" piece of tubing which will fit over the piece attached to the camera. Figure 14 shows the construction and Figure 13 shows the project in use. The camera should be set at infinity and the telephoto



EASY to build Kodachrome viewer with top removed. Although wired for 110 volt house current the viewer can be easily adapted for battery operation, using flashlight batteries and bulb.

FIG. 15



A SINGLE positive lens makes a good magnifier for examining a negative.

FIG. 16

FIG. 17



PERSPECTIVE of the Kodachrome viewer. A 92mm. lens is used for the eyepiece. Using a 110-volt lamp, the Kodachrome is greatly magnified and is brilliantly illuminated.

FIG. 18

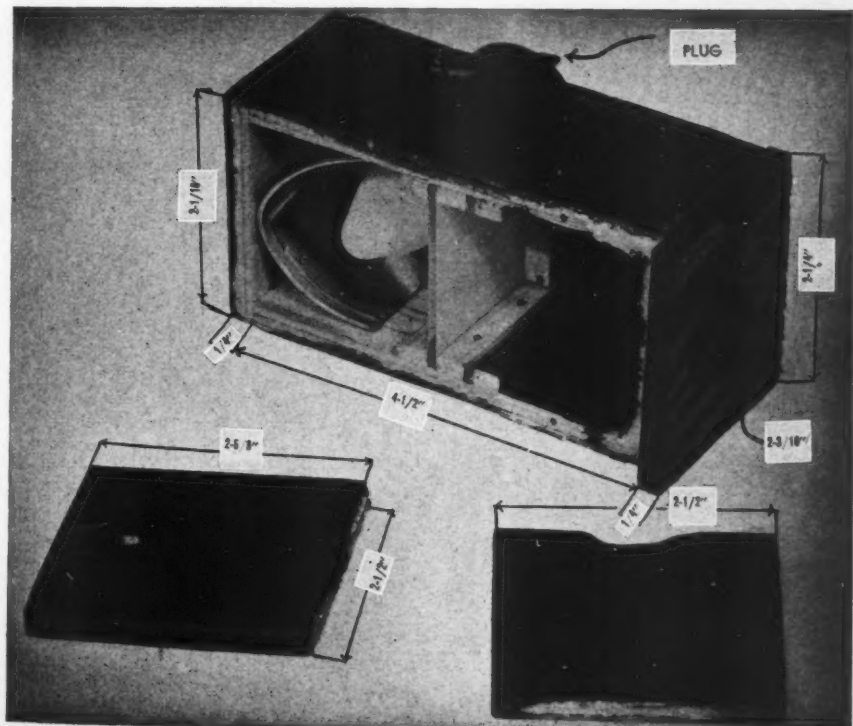




FIG. 19
COPY PRINTS can be made without a double-extension bellows by using the correct supplementary lens.



FIG. 20
AN ULTRA close-up. The stronger the magnifying power of the supplementary lens the closer you can get to the object being photographed.

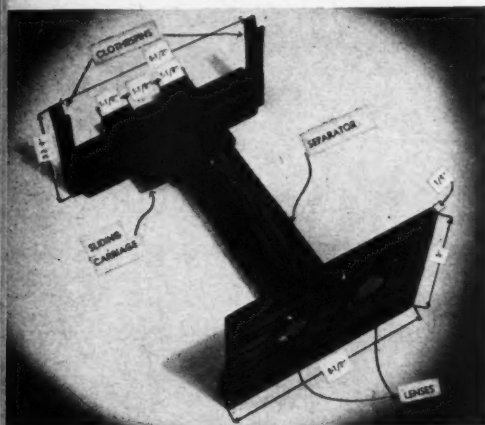


FIG. 21
STEREOPTICAN viewer made from the lens set, a few pieces of plywood and clothespins. Dimension between clothespins is $6\frac{1}{4}$ inches.



FIG. 22
VIEW for left hand mounting for stereo viewer. Prints are mounted $2\frac{1}{4}$ inches on centers.



FIG. 23
RIGHT hand view is taken after camera is moved three inches to right. Note difference in area.

of a plywood box, and in addition to plywood you will need a small piece of opal glass about $2\frac{1}{2}$ " by $2\frac{1}{2}$ ". The lens is mounted in front of the box and a low wattage (5 or 10) 110-volt lamp is used as the source of illumination. For dimension details see Figures 15 and 18. This lamp can be turned on and off by means of the small switch built into the base. Kodachromes viewed this way are large and brilliantly illuminated.

Copying is one thing that cannot be done with the average roll film camera or single extension plate camera unless a supplementary lens is attached. The right lenses to be used when copying are the 393mm., 254mm., 136mm., and 92mm. focal lengths. Again you will have to do some preliminary focusing by means of the waxed paper or ground glass which you will attach to the back of the camera before the film is put in. Use the proper lighting when making copies. See page 16.

It is possible to make your own viewer for stereoscopic pictures. First let us see how to make the pictures using a single camera. A picture of the scene is taken and then the camera is moved three inches to the left or right and another shot is made. This gives you two negatives of the same subject but from slightly different viewpoints.

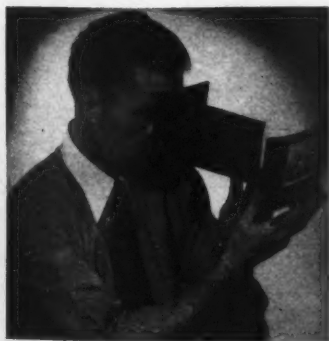


FIG. 24

THE VIEWER focuses the stereo prints until the third dimension appears. This usually requires some adjustment.

Figure 21 shows the construction of the viewer and also gives dimensions. For pictures under $2\frac{1}{4} \times 2\frac{1}{4}$ use the 152mm. focal length lenses. Anything larger requires the 353mm. lenses. The photo shows the $2\frac{1}{4} \times 2\frac{1}{4}$ stereo viewer.

The prints are mounted on a piece of cardboard, one on the left side and the other on the right. Pick some point of reference near the right side of the print and note which print shows the most area to the right side of this object. That print should be mounted on the right hand side of the cardboard holder.

When mounting the prints space them $2\frac{1}{2}$ inches from their centers. (Fig. 25.)

These are but a few suggestions concerning what you can do with a lens set. After working with the lenses, you will be able to devise original uses of your own.

Here are a few final suggestions if you contemplate original experiments. Whenever possible use a small opening in preference to a large one. This reduces the aberrations. Have the curved surface of the lens facing the light source.

A book which will help you create many new ideas for using lenses is *Experimental Optics* by A. Frederick Collins, published by Appleton.

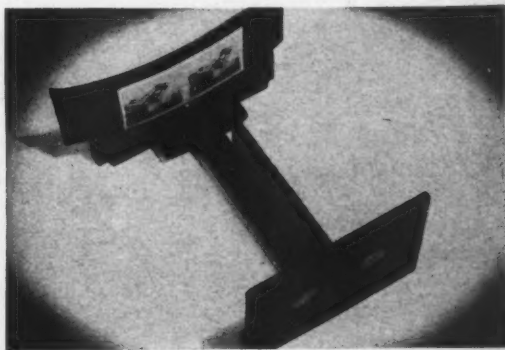


FIG. 25

STEREO views can be mounted on both sides of a piece of black cardboard. The stereo viewer is as old as your grandmother's tintype, but it is still a lot of fun to see depth and distance in pictures.

exposure must be

Right

FOR KODACOLOR

By W. A. REEDY

THE DREAM of photographers for many years was full color prints not just transparencies. Now that Kodacolor has made these dreams come true, we find that the chances for error have been multiplied unless we are extremely accurate in making our exposures,



FOR ACCURATE exposure take a close-up reading of the principal object in the picture. FIG. 1

FOR LANDSCAPES and distant views, a substitute reading should be made as shown in Fig. 3. FIG. 2



judging the light quality, the scene range, and the lighting of the scene.

Best results will be obtained only when these four factors are all correctly controlled. Of all the factors, one of the most important is correct exposure. With Kodacolor it must be precisely right.

Most color photographers use meters to insure these correct exposures, but, like any instrument, they must be used in the proper manner. Rather than measure the light from the position of the camera, a close-up reading is made of the principal object (Fig. 1) in the scene. The meter should be held about the same distance away from the object being measured as its smallest dimension. For example, in the case of a portrait, the meter would be held about six inches from the face. Care should be taken not to cast a shadow of the meter on the face, for the resultant light value would naturally be erroneous. Note that only one reading is made, and that of the main object of interest.

After measuring the light value of the principal object, that number should be used to set the exposure meter. If a Uni-

versal Weston meter were used, the normal arrow index would be set to the light value and an exposure setting chosen. Other meters should also be set in the usual manner.

Black-and-white objects should be disregarded in making this close-up reading, and only the colored ones considered. Kodacolor has practically the same range (or latitude to error in exposure) to black-and-white objects as regular panchromatic film. But its range to color is very short—even shorter than Kodachrome. This is to be expected since it results in a paper print rather than a transparency. Incidentally, considerable error in exposure can be made and still obtain a Kodacolor print . . . but errors in exposure show up as false and diluted colors. For optimum reproduction, precise exposure is absolutely necessary.

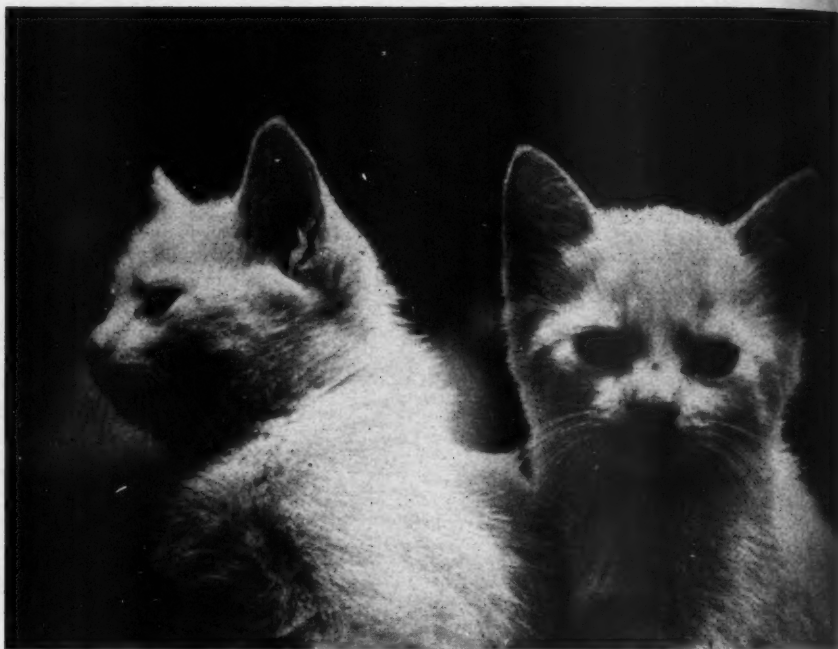
Since Kodacolor has a short range, exposure should be based only on the most important color in the scene. For a portrait, the face would be most important, therefore the reading would be made of the face; and for landscapes, the largest area



GREEN GRASS makes a substitute for the reading needed to take the distant tree in Fig. 2. **FIG. 3**



THE BACK of a hand gives a substitute reading for a person's face, and is less disconcerting. **FIG. 4**



THE EXCEPTION to the rule of "not taking a reading on a light object is a case similar to this picture where the principal objects in the picture are white. FIG. 5

of bright color (probably grass) would be most important. If there is no choice among the colors in the scene, choose the brightest (white is not a color).

The quality of the light illuminating the object being photographed is almost as important as exposure. For pleasing Kodacolor prints, it is imperative that the exposure be made not earlier than ten o'clock in the morning nor later than three in the afternoon. These hours will vary slightly with the seasons, but they represent safe limits. Earlier or later in the day, sunlight is too yellow and scenes photographed at those times will result in all color being "painted" with yellow.

It is also necessary to have the subject in the open sunlight. This is particularly important in portraiture. While it is quite true that shade or back lighting is easier on the victim while the pictures are being made, it is equally true that such lighting will be harder on them when they see the finished print. For their faces will

be blue as though they were freezing to death, or greenish with envy. Unless direct sunlight is used, the subject will be illuminated solely by sky light, which is blue and results in blue pictures, sometimes almost green. For most pleasing colors, put the subject in the open sunlight.

Kodacolor is primarily for sunlight exposure, and best results will not be obtained with any form of artificial light used independently of sunlight. Supplementary lighting does improve close-ups taken in bright sunlight by filling in shadow areas. Natural surroundings or cardboard reflectors often afford a satisfactory fill-in light, but colored reflecting surfaces must be avoided because their color will affect the rendering of shadow areas. When it is necessary to make Kodacolor pictures indoors, only blue-bulb Photoflash lamps, which cause the light to approximate daylight in color quality, should be used. The regular Photofloods or clear-bulb Photoflash lamps would make the pictures orange in color.

SHOOTING THE COVER

meet

PHILIP PLANERT

*Another of the Army's
Photographic Discoveries*



Photo: Romaine

OUR COVER shooter, Philip Planert, was formerly known to thousands of sports fans as "Little Tarzan."

THE BUGLE sounded and men dashed about everywhere, each one loaded down with heavy equipment to use in the war training manoeuvres. It was to be an overnight hike under war conditions.

Sgt. Oscar Sweet and Pvt. Philip Planert were assigned the job of covering the hike photographically. Kurt, the smart Doberman Pinscher, and a born actor, had already been given his trotting orders. Sgt. Sweet was equipped with his 4x5 Speed Graphic and Pvt. Planert had a 3 1/4 x 4 1/4 Speed Graphic and a Contax with telephoto lens.

An hour or so after the trek got under way, Sweet and Planert reached a good setting for a picture, a practice trench with sand bags piled high.. Handing Sweet his Contax, Planert went into action with his own Speed Graphic loaded with Kodachrome. The cover picture was taken at

f/8 at 1/50 sec. The model, Sgt. Sweet, will be remembered for his sparkling cover on the January MINICAM, "The Soldier and His Girl."

Philip Planert not so long ago was billed under the exciting name of "Little Tarzan." He was a professional wrestler, whose knock-down drag-out bouts have been seen in practically every state in the middle west and south. After receiving an injury in Miami, Florida, in a match with former lightweight champion Shanno O'Sullivan, he retired from the ring to become a photographer, working with Karl and Emil Romaine in San Francisco. Then came the war. Philip now spends his time wrestling with cameras and is attached to the Signal Corps at Camp Callan, California. We can expect to hear a lot more of him, for from all accounts he puts as much energy into his picture taking as he did into his half Nelsons.

TERRY

AND THE PIRATES

MILTON
CORKIN

I TELL YUH—
SHE'S GONE!
TH' REDHAID
HAS CUT AN'
RUN!

ROUGE HAS GONE?
WHY, SHE'S WOUNDED!
HOW DID SHE DO IT—
AND WHEN?

THAT'S
THE
QUESTION

MILTON CORKIN

uses Photography to pro
his popular nature

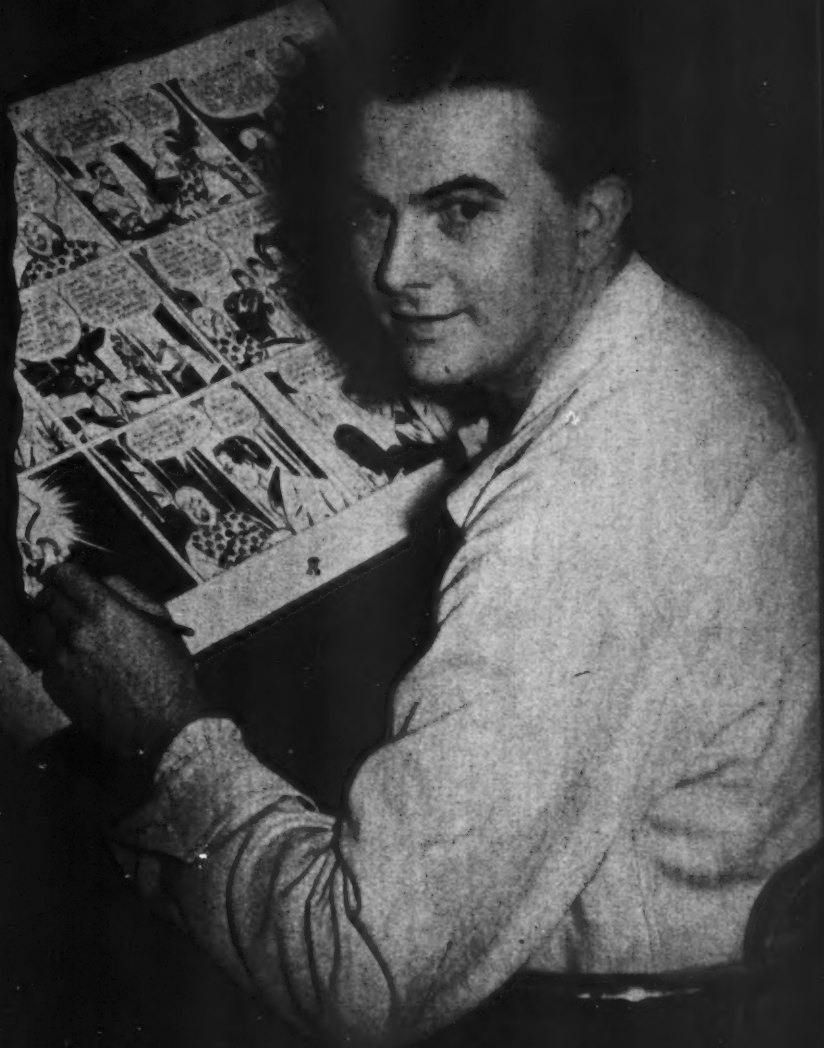
by Ron



the

to produce
a picture strip

164



MILTON CANIFF, creator of the cartoon strip, *Terry and the Pirates*, is a stickler for photographic accuracy. His drawings are so exact that they can be used almost as blueprints for a blitz.

One day, combing his brain for a new idea, he cooked up a plan for a torpedo raft. Used as a decoy in the ocean, this strange and potent rescue craft could, at the proper moment, launch its torpedoes; and these, guided by magnetic deflection, would crash slam into the hull of an oncoming enemy ship.

Working out the scheme with engineering skill, it graced the frames of the next *Terry* strip. Two days later Caniff got an official letter from the Navy. "When you get any more bright ideas like this," a certain admiral wrote, "let the Navy have it first."

All of which is by way of a preamble to Caniff's unusual personality; and his dramatic and efficient way of combining the art of the lens with that of the brush. We have heard a lot about the way art has contributed to photography; but it is equally important that a fellow like



Photo: Larry Gordon

SELECTING the model to portray "Taffy Tucker." Milton Caniff sketches his ideas for Harry Conover who has lined up an array of his models for the occasion.

Caniff can use photography to give art an extra dimension.

Fighting for the Allies in China, Caniff's heroes and heroines fly in the latest type planes, fight with the most modern equipment, and do battle in places which exist in real life. Caniff, as a result, has found himself in one of the most unusual military spotlights yet to be turned on a creative artist: he has had to keep one foot in the research laboratory, while the other dilly-dallied at Shangri-La.

Every *Terry* drawing has to be technically correct. If a man holds a German Luger pistol, the cartoon must show an actual Luger, not an unidentifiable blob; if a pilot goes on a high altitude mission, the oxygen mask he wears must be of the latest type, and actually in service. This may sound as if the demands of accuracy were being stretched; but Caniff has

found, from embarrassing experience, that each boner results in hundreds of protests from readers in the know.

In time, Caniff found that he had to project his whole personality through the lens. There were weeks when he lived with his Leica and Rolleiflex always on the click. If he happened to have to wait for an hour at some airport, he would fish out his camera and shoot a few hundred negatives—not landscapes, or dramatic scenes, but details: loading cranes, gasoline trucks, signal towers, runway lights, special equipment.

The files of the picture agencies were ransacked. Library records were photostated. Gradually, Caniff found himself acquiring pictorial archives which would do credit to a news service. And once his passion for location detail became broadcast, an army of volunteer spies sprang



Photo: Larry Gordon

ON LOCATION in one of New York's Chinese restaurants the situations for the coming weeks of "Terry and The Pirates" are worked out with April Kane (Cay Sterns), Burma (Dorothea Sweeney), Merrily (Mary Lee Engli) and the Dragon Lady (Patricia Ryan).

up, correspondents in all parts of the world who mailed in everything from candid shots of the girls on the Flower boats of the lower Yangtze . . . to modified blueprints of bombsights. Today, Caniff has a trained overseer whose only function is to minister to the daily needs of some half a million prints.

To help speed action, Caniff works with a private cast of models. Once a week, or whenever the occasion dictates, he assembles his road company, throws a Rolleiflex over his shoulder, and entrains for Chinatown or some special locale. Working like a veteran movie director, he arranges his sets, poses his characters, and clicks away. Several hundred shots may be made on these location jobs, shots which are later properly classified, cross-

indexed, and added to the files of Caniffiana.

If you will look carefully at the strips on these pages, you will see that Caniff's eye is well-conditioned to the proportions and details of the body—so much so that he could work with anatomical precision *sans* camera. But the passion for accuracy which for him has become almost an obsession makes Caniff check and double-check against every situation.

Milton Caniff's story is one of the most dramatic sagas in newspaper work. Not so many years ago, he was hauling out of Ohio State, hell bent on being either actor or artist. His success in *Scarlet Mask* shows and as a contributor and Editor on the *Sun Dial* staff had pretty well established the fact that he had talent for both.



MILTON CANIFF taking the photographs that were used for the dramatic surrender of the Dragon Lady to the strong arms of Pat, in the sequence of the cartoon strip shown below.



Psychological pressures being what they are, and economic accidents being more potent, Caniff split himself, and became a little of each.

"Actors don't eat regularly," his friend, the late Billy Ireland, cartoonist for the *Columbus Dispatch*, had told him. A trial flier as an extra in Hollywood made Ireland's advice strike home. Caniff, pride of Hillsboro and Dayton, Ohio, soon found himself in New York, creating characters instead of assuming them. For a number of years he worked for the Associated Press, drawing two strips: *Dickie*

Dare and *The Gay Thirties*.

Joseph Medill Patterson, president of the *News Syndicate*, leaned across his desk, in 1934, and said, "Caniff, I want you to create an entirely new strip for us. Adventure. Drama. Emotion. Glamour. Something for adults as well as kids."

A gleam came into Caniff's mind's eye. He gave his imagination the gun, jumped as far from reality as possible. He mixed American football-hero types with pirates. He threw in a glamorous woman pirate. He set his scene in China, where, as he said, "I thought no one would be able to

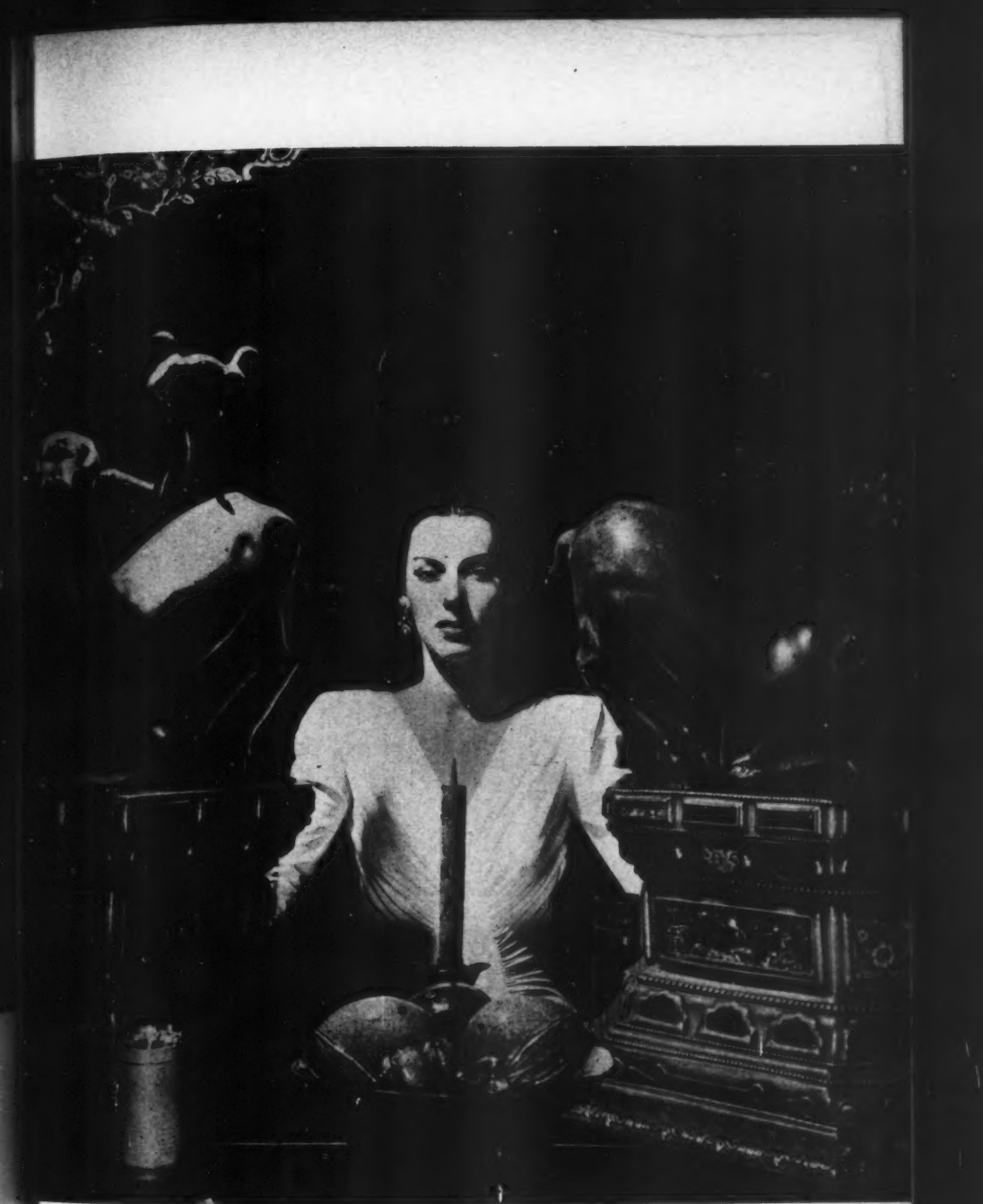


Photo: Larry Gordon

FOR THE proper atmosphere and setting for the Dragon Lady, Milton Caniff posed her between some of the oriental art that he has collected during the years he has been directing his war against the Japs.

check up on me." He made his women *decolleté* and lush-legged. He cut into cheesecake with a fine-edged palette-knife.

In the Yangtze gorge, Caniff's irrepressible imagination went to work. Knowing nothing of China or things Chinese, he progressively wore out the pencils of Room 319 in the New York Public Library. Speech mannerisms he culled from Pearl Buck, Lin Yutang, and the several hundred books of authentic travels in the Celestial Empire.

Characters began to appear, develop, live, and die like the *comédie humaine* of Balzac. Unlike most other characters in comic strips, Caniff's became in the minds of most Americans real, flesh-and-blood people. They had personalities, they had oomph. When for reasons of expediency Caniff let Raven Sherman, a curvilinear American heiress die of injuries, it was reported that two hundred students in a mid-western university faced the East and bared their heads in silent grief.

If you will put a magnifying glass to the lips and gams of the girls in the pix on the opposite page, and if you will compare them with the "Dragon Lady" and with "Burma" in the strip, you will see how close the connection is between Caniff's notion of reality and his fine Ohio hand.

"Why didn't you draw women this way when you worked for me?" an old editor once wrote him. Caniff wired back: "DID NOT DRAW WOMEN YEARS AGO BECAUSE I DID NOT KNOW HOW. STOP. HAVE BEEN AROUND SINCE."

As the months clicked off, and more and more papers subscribed to Caniff's glamorized escape from reality, time and the river caught up with him. He had been showing heroic Chinese fighting an imaginary "invader". But the "invader" soon went up the river in earnest. Caniff found himself portraying not imaginary American allies in China, but authentic ones.

His heroes became thinly disguised portrayals of The Flying Tigers. The planes

they flew, and the guns they fired, had to be regulation stuff. P-40's entered the picture, Bofors guns, Consolidated Liberators and Boeing Flying Fortresses. Far from being a place where "no one could check up on me," China became a locale where accuracy of drawing was as important as in the U. S. Patent Office.

Further, the Flying Tigers, from General Chennault down, were reading the strip the way an actor reads his reviews. *Terry and the Pirates*, a feature which soon lost all connection with pirates, had become, willy-nilly, almost the Congressional Record of the American Forces in the Orient.

Face, then, as well as craftsmanship, was at stake. Caniff had to redouble his attention to photographic accuracy. Even aeronautical detail, every close-up of an instrument board had to be compared with the latest official photograph on the subject. Caniff's files became as well-thumbed as the fingerprinting pad at Sing Sing.

Further, he found himself an almost one-man branch of the Army. Calls began to come in daily for special kinds of illustrations. He was asked to illustrate in the Army's *Pocket Guide to China*, a feature called "How to Spot a Jap." Special squadrons of fliers keep writing in, asking for the design of special insignia, of characters for emblems.

And, on the debit side of the ledger, those peculiar critics who seem to devote their lives and their educations to the profession of boner-spotting, lie in constant wait against the day they can locate and cry "there" over an eye-splitting boner. Once, for example, he came close to alienating the whole of the U. S. Marine force. It seems, that, in an off moment, he forgot the insignia on the old-style helmets of the leathernecks. This trouble, of course, is old hat to professional lens-clickers.

It's hard to find Caniff when he isn't working. He spends most of the week in the studio of his modernistic house up the Hudson. Adjoining this studio is a dark-room, equipped with the most modern and efficient apparatus. A couple of days



Photo: Larry Gordon

THE GONG is sounded by the Dragon Lady while she covers Burma and Merrily. Caniff poses and photographs scenes such as this one for notes for his drawings.

out of each week he works in the city. On these jaunts he is either selecting new models, doing special lens work in the vicinity of Mott and Pell streets, or, more likely, simply drawing in a secluded room in some hotel.

To add variety to his daily stint of turning out *Terry*, Caniff has lately initiated a lusty cartoon series for the 600 Army newspapers. Each week's strip is keyed to Army lingo and is built on a complete gag. Another of Caniff's recent projects has been the drawings for the Army's *Guide to China*; here his clear style has made the book sparkle.

It's not a small job to crank out a full continuity, plus a full set of drawings every day in the week, with a full page in color for Sundays. And when every inch of locale has to be filtered through the flaw-finding grains of Caniff's panatomic eye, the problem is blown up some sixteen diameters.

"How do you stand the grind?" Caniff was asked. Caniff rested a hand on his suspenders. "There are two answers: (1) A lot of cartoonists learn too late that you can't ink in with a swizzle stick; and, (2) I now have a five-figure income—which tells all and tells nothing—and suits me fine."

TERRY

AND THE PIRATES

TERRY, THE GUERRILLAS ARE RETREATING... BEFORE THE INVADERS CUT THEM OFF!... I CAN'T MOVE WITH THIS TWISTED KNEE! YOU GO ON, BEFORE YOU'RE CAUGHT!...

THEY'D ONLY THROW ME IN THE CLINK AGAIN - BUT THEY'D SHOOT YOU... IF THOSE SECRET POLICE GOT THEIR HANDS ON YOU! WE'RE BOTH GETTING OUT!



JUDE HENICK, in real life Capt. Frank Higgs of China National Aviation Corp.

Photo by Clare Booth

NOT SO EASY TO FIND LANDING PLACE!... MAYBE THEY DROP STUFF BY PARACHUTE!... DO YOU SUPPOSE IF WE GOT HIS ATTENTION HE-----

OH BOY! HE'S SEEN IT!

WELL, BLESS BESS! A GROUND SCHOOL FOR SKY WRITERS!... MUST BE AMERICANS OR BRITISH!... MAYBE THEY WANT OL' DUDE AS A FOURTH FOR BRIDGE!



TERRY

AND THE PIRATES

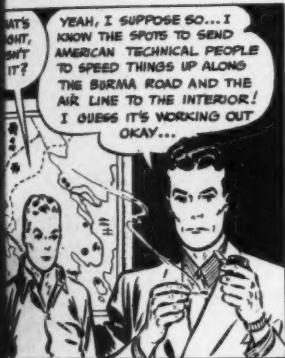
MILTON
CAMP

JUMPIN' JUNKS,
PAT RYAN, YOU'RE
A BIG SHOT!...

...I'M
MISERABLE,
TERRY!

HOW COME?...YOU SAY
THE DRAGON LADY SOLD
YOU ON SITTING IN AS A
TROUBLE-SHOOTER TO HELP
KEEP OPEN THE LIFE LINE TO
THE INTERIOR OF CHINA!
YOU MUST BE DOING A JOB
...THE WAY THEY KOW-TOW
TO YOU AROUND HERE!

THAT'S THE
TROUBLE...
SUPPOSED
KNOW SOMETHING
ABOUT PROBLEMS
OF TRANSPORTATION
UNDER VARIOUS
CONDITIONS



YEAH, I SUPPOSE SO... I
KNOW THE SPOTS TO SEND
AMERICAN TECHNICAL PEOPLE
TO SPEED THINGS UP ALONG
THE BURMA ROAD AND THE
AIR LINE TO THE INTERIOR!
I GUESS IT'S WORKING OUT
OKAY...



WHAT YOU'RE GRUMPING
ABOUT IS THAT YOU'RE NOT
HAVING ANY FUN, ISN'T IT,
PAT?... YOU HAVEN'T SOCKED
ANYBODY ON THE NOSE FOR
MONTHS... TOO MUCH OF THE
WELL-PRESSED CARPET
SLIPPERS AND RESPECTABLE
FIRESIDE, HUH?

LISTEN TO
TERRY LEE,
THE OLD
PHILOSOPHER!
... SORT OF
MATURED
SINCE I
SAW YOU,
EH, FELLA?



CAY STERNS and **Bill Agnew**
are the models for April and
Terry.

Photo: Benedict Frenkel



APRIL!
APRIL
KANE!



TURNING ON THE HEAT...40 MM

"ACK ACK" IN ACTION... PHOTO

SGT. O.C.SWEET CAMP CALLAN

CALIFORNIA



ON THE NEWS FRONTS

LT. COL. ELLIOT ROOSEVELT ABOUT

TO START ON PHOTOGRAPHIC EXPEDITION

SOMEWHERE IN NORTH AFRICA...ACME PHOTO



TWI
WHI

CHEC
PHOT
WRIG



TWIN 50 CAL. MACHINE GUNS...AMERICAN AA WEAPON

WHICH HAS PROVED SO EFFECTIVE...PHOTO SGT. O.C.SWEET



CHECKING PHOTOGRAPHIC WORK AT NAVAL

PHOTO SCHOOL, PENSACOLA...BY RUSSELL

WRIGHT FROM EUROPEAN

Creative Photography

BY CHARLES S. MARTZ, A. R. P. S.

PART I - AN EVENING WITH THE PICTORIALISTS

PICTORIAL PHOTOGRAPHY is, as usual, running wild. Pictorialists, aided and abetted by salons, judges postal and express regulations, social obligations and statistics, are the white-tie producers of overlarge snapshots. Pictorialism is an incident in the whirlwind of activity. These dervishes of the hypo haven't time to think.

Negatives, shot at breakneck speed, are burned to a crisp in the rush to beat the closing dates of seventeen simultaneous photographic salons.

Being an ardent believer in the possibility of pictorial photography, I am going to describe the system of creating pictorial photographs. Let's look in and listen to a few of today's pictorialists. As we go first to see the home of Cody Bromide, I'll tell you something about him.

Anyone with half an eye can see that Cody Bromide, A.O.T.F.P.P. (associate of thousands for pretty pictures) is a pictorialist. He had four prints in the winter circuit. One of the prints hung eleven times. Due to the monotony of mentioning that it was turned down fourteen times, he says nothing whatever of that. Aside from the four original prints, Cody printed, mounted, titled and signed a total of fifty-two duplicates, or one duplicate for each week in the year. He wanted to make some new pictures, but with shipping, score-keeping, camera clubbing, etc., he just didn't have time. Now a new season is staring him in the face. He needs new prints and he needs them quickly. He definitely has the urge to do something

pictorial — C. Bromide isn't one to sit around waiting for his mind to have the itch. He knows that time is short and that salon closing dates are stubborn as pavement.

Not an outdoor man, Cody Bromide belongs to the group that uses models. When the urge hits him, he grabs the first model he sees. It may be the ubiquitous long-whiskered tramp that calls at all pictorial photographers' back doors, or the girl that helps clean the house on Thursday. Cody uses his living room for a studio. He keeps the camera loaded and long before the model knows what it's all about, he snaps on the light and shoots a roll of film.

This is Cody Bromide's house. We've arrived at the right moment.

Mr. Bromide is getting hot. He stalks first to the lamps, then to the model, turning her a quarter inch to the right, then to the left. The model, by the way, is the cleaning girl with a piece of lace curtain over her head. Now he's back at his camera, snapping and rolling film. We watch fascinated as he speedily replaces burned-out bulbs. While many photographers never seem to know how to begin, our pictorialist knows exactly when to stop — when he runs out of film.

He learned years ago that Lady Luck showers her blessings on quantity shooters. A new roll is threaded in and they're off! But wait — Cody is slowing down. That far-away look would indicate his thoughts are circling and diving, bringing up unexpected bits and pieces. Let's listen in:

"She's not a bad-looking gal. She re-

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"TOURISTS" by Vera Gamma, shot from a moving mule, is pictorialism at its best. There are 14 "S" curves in this shot. Most photographers would have been satisfied with one.



"INTO THE NIGHT" is the dramatic shot of a moving aeroplane by Vera Gamma.



"OPEN RANGE" by Vera Gamma proves that one need not stop a car in order to take a salon shot. The clouds, which are cumulus, were not added to the picture but were in it just like they are here, except of course a "G" filter was used to make the sky black.



"THE MONK" is the work of the well-known salon exhibitor, Cody Bromide. Note texture of the monk's cloth and delicate lighting on left ear.



CHARLES S. MARTZ

DEEP IN THE OZARKS there lives a lively wit whose friends call him Charlie, and his friends are photographers scattered all over the world. For several years the Martz Salon Letters have brought fresh ideas on photography in the typical Martz style which rams with ebullience. Charlie Martz has an extreme knowledge of photography—he is head of a school of photography and a school of photo-engraving . . . His pictures have won him signal honors all over the world. In this, the first of a series of articles, Charlie Martz uses "the kick of a small mule" to break the spell that the words "Salon Exhibitor" have cast on too many young photographers.

minds me of a 'Clothes-off' Mortensen job. Maybe I can improve on Mortensen. I wonder if she would mind taking her clothes off. She very probably wouldn't want to. Anyway, I'm all set with lace curtains. I'd better shoot another roll so I can get them in the mail."

It's hard to be interesting to stay and watch Cody develop his negatives and make his big glossy prints, but we want to watch some of the other pictorialists. Down the street is the studio home of pictorialist, Matte Kora.

It's hard to catch Mr. Kora working at photography. Matte is a paradoxical paragon with a cynical outlook. He writes articles for the photographic magazines. He fiddles with photographic developers—last year he graphed the log curves of 27 different films to be sure the manufactures were putting nothing over on him. And when he goes creative, it's with stills. Kora is a careful workman. His prints are well made, flawlessly printed and beautifully mounted and signed. His best photographic article shows his contempt for carelessness. I have a copy of this classic, which surpasses browsing in the *Congressional Records*, and I'll read it as we go to Matte Kora's house.

CARELESS PHOTOGRAPHY

BY MATTE KORA

Various and sundry branches of photography have been exploited for years in the photographic magazines. Professional photography, commer-

cial photography, pictorial photography, table-top photography, color photography, candid photography, and purely photography. These phases have commanded an enviable number of pages in every one of the journals that deal with the mysterious action of light on silver.

Authors bristling with energy and an unlimited supply of paper have gone so far as to write books on "The Itinerant Photographer" and "Histories of Photographers and Photography," yet one broad photographic classification has been hopelessly neglected right down through the decades. This particular branch of the great photographic industry is "Careless Photography." "Careless Photography" is done almost exclusively by careless photographers.

In spite of the fact that careless photography has had little or no publicity during the past few decades, this popular branch has grown steadily. In the darkroom, the modern method of selecting the proper contrast, if you have four grades of paper, is to hold the left hand over the eyes, and say "Eeny, Meenie, Miney, Mo," while pointing to the four different grades. "Mo" is the paper to use.

Once the paper is selected, you can shift into high. Place a sheet of this paper on the easel and use it to focus the image sharply. Naturally, this particular sheet of paper will be ruined,

"STILL LIFE," one of a series by
Matte Kora. It seems almost
superfluous to mention the "S"
curve.



"THE SKATER," of course, is one of Matte
Kora's best known table-tops. Note the
r-h-y-t-h-m and poetry of m-o-t-i-o-n.



"LOW KEW PORTRAIT" is another Cody Bromide salon winner. The sharp line from chin to ear shows where the axe severed the body.

but think nothing of it. Avoid test strips—they are for beginners and fussbudgets. Make your first exposures on a 11x14 sheet. Throw it quickly into the developer, with the red light perched on the tray of developer. If the image doesn't pop right up into your face in about five seconds, something is wrong. You may have the paper upside down. Check now to see the negative was in place. Once popped, don't wait. Slap it right into the hypo and shake the tray like everything. Of course, five seconds of curiosity is going to prompt you to turn on the white light and why not?—you learn that way. In all probability, your package of printing paper will be open, and you will be ready to try another sheet. When you get a print; and if you do not happen to have a squeegee plate, squeegee it down on a piece of window glass. Even if you aren't able to

remove the print, you'll always be able to look at it through the glass, which, after all, has quite an advantage, since the print can't get scratched. Dry the print quickly over the furnace or gas range. Carry it out into the daylight, and compare it with something in "Esquire." If it doesn't compare favorably, carry it to the dealer who sold you the camera. The camera is defective.

That finishes Matte's article and here is Matte's studio; let's look in. He's home all right, but he doesn't seem to be working—or is he? Yes, he is doing a new article. Wading through the crumpled sheets of paper, we see he is having trouble. The title of his new article is "Still Life Through a Pin Hole." Don't take it to the light to have another look. Believe me, that's the title.

Matte seems to be sitting on tenterhooks, so let's look in on Vera Gamma.

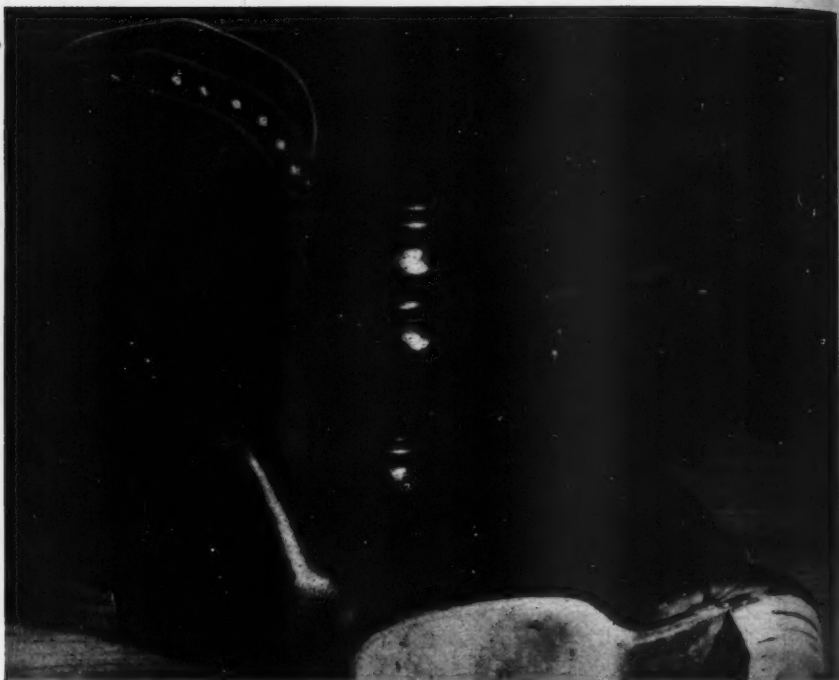


"HITCH HIKER" made during Cody Bromide's excursion into the field of illustrative photography. "Subtlety is my God," says Cody B.

Vera took up photography because her husband owned the Busy Bee Department Store. In order to impress the other townspeople with the dough that came rolling in, Vera Gamma began to travel. She covered the continent. But it all seemed a little flat; for after she got back home, there was only a tale of her travels and some new clothes to show for the trip. So Vera took up photography. Howard Gamma was persuaded to put in a camera department at the Busy Bee so she could get films wholesale. Then things began to happen. First came a 35mm. camera and enlargers. Vera's output of films got so far ahead of her printing that it seemed logical to get a larger camera and put the 35mm. back in stock. With the 4x5 it was impossible to carry more film on a long trip than could be developed in a few days after she got back.



"COTTONWOOD CHILDREN" is from Cody Bromide's pastel period. "Nature," he says, "offers us countless variants."



"LIFE GOES ON" is one of Simon Kora's astute studies from his book "The Little Tavern on the Hill". Note the exquisite highlights on the ba' stard re' gency bed post leg. Although first done in April, 1874, pictorialists delight in making refinements of this scene, as for instance, substituting a sheraton leg.

Then she descended upon the salons. After all, there was the shipping room at the store to wrap the prints neatly and send them out; there was Howard's secretary to fill out the entry blanks, and the book-keeping department had worked out a secret file rivaling the French *dossiers*, indexed and cross-indexed on the likes and dislikes of every salon judge in the country. If he liked "Sleepy Lagoon" in New York, he should like it in St. Louis. If "Snow Scene" clicked in Boston, it should in Detroit—that is, providing the same judge was on the jury both places.

And so the Gamma system of hitting salons was born.

When interviewed in Detroit recently,
(Continued on page 92)



"STEPS IN POTS," or as it is more familiarly called, "Pots," by Simon Kora shows how objects gain or lose from each other by their relative shapes.

A Conservation Message from GRAFLEX



Sure, your GRAPHIC or GRAFLEX is tough and rugged. That's why Graflex-made equipment is in service with our Armed Forces. But don't abuse your camera—especially when you can't buy another until after Victory. Here are a few simple rules to help preserve your irreplaceable GRAPHIC or GRAFLEX. Follow them. Avoid, too, every waste of film, paper and chemicals—and invest your savings in War Bonds and Stamps.

Cut out this page and keep it with your camera.

How To Take Care of Your Camera...

When You Use It:

- ★ Keep the lens free of dirt, fingerprints and moisture. Brush or blow off the dust, and then clean carefully with special lint-free lens tissue — never with rough cloth or paper.
- ★ If your camera becomes wet, dry it completely and immediately.
- ★ If anything binds or sticks, do not try to force it. Find out what is wrong and have it fixed by an experienced camera repairman if necessary.
- ★ Keep the camera and all accessories clean inside and out at all times, and treat them like the fine instruments they are.
- ★ Have your camera—especially the shutters—serviced by only an experienced, reliable repairman. Never oil a shutter or diaphragm yourself.

When You Put It Away:

- ★ See that the shutter is uncocked and set at low speed—and that the focal-plane shutter tension is fully released.
- ★ Keep the camera in its case in a cool, clean place—away from heat and chemicals. Do not leave film-holding accessories in spring-back cameras.
- ★ If you do not use your camera frequently, take it out every two or three months and operate all moving parts to keep them free.

At All Times:

- ★ Remember about the "ounce of prevention . . ." If your GRAFLEX-made Camera ever needs attention of any kind, take it to your Graflex Dealer and ask about the Graflex Customized reNEWal Plan.



The Army-Navy "E" Flag, for high achievement in the production of war equipment, flies over the Graflex plant. To every member of the Graflex organization it is a symbol of work well done—and a challenge to even greater accomplishment.



FOLMER GRAFLEX CORPORATION, ROCHESTER, N. Y., U. S. A.

CAUSES OF FILM FOGGING

Fog is present if the margins of the film and the spaces between pictures are not clear. Films that are only slightly fogged show a light veil of grayish deposit over the entire negative, while other films are nearly opaque because of this exposed silver layer. There are numerous reasons for fog.

OUTDATED FILM

Fog is often caused by film which is outdated, particularly when the film has been stored in an extremely warm and moist climate. Outdated film will often be unchanged after storage in cooler climates but high temperatures combined with high humidity cause rapid deterioration of film. It is therefore recommended during warm weather conditions to expose film shortly after it is purchased and to remove it from the camera and have it developed soon after exposure.

The information given below applies only to the amateur photographer who develops his own negatives. These factors are seldom encountered in professional photo finishing laboratories.

IMPROPER SAFELIGHTS

One of the most important points to be checked relative to securing fog-free negatives is the selection of a suitable safelight. There are numerous types available but when purchasing one for your darkroom be certain that it is of a standard manufacture and that it is recommended by the manufacturer for use with the film which you wish to develop. The purchase of a cheap safelight is poor economy as these often transmit colors to which the film is sensitive. Photographic dealers are generally in a position to offer sound recommendations relative to safelights. However, it is good practice to make a test of your darkroom illumination to insure its suitability, and we recommend the following procedure for such a test:

Expose a partly covered piece of film to the direct rays of the safelight for a period of two minutes at the usual working distance. If, after normal development in darkness, the exposed part turns gray, the safelight should not be used. A less brilliant bulb will generally correct this condition, and in some instances (when only a slight veil of fog appears) it is necessary only to develop at a greater distance from the safelight to obtain a clear negative.

Orthochromatic film can be developed in dark

red illumination, but it is necessary to develop the Panchromatic emulsions in total darkness, at least until the film has developed for a period of two or three minutes when the sensitivity of the emulsion is somewhat reduced. After this period of development, a very dark green safelight can be used sparingly for brief inspections but never (unless the film has been desensitized) can a red safelight be used for the development of Panchromatic emulsions.

Fast press pan film should be handled and developed in total darkness.

LIGHT LEAKS IN DARKROOMS

It is good practice to test the safety of your darkroom. Beware of cracks and leaks around the door jams and through windows. Many amateurs use a kitchen or laundry for development at night and under normal conditions this will work very satisfactorily, but be cautious regarding street lights or automobile headlights, which in many cases have caused difficulty.

An ideal way to test your darkroom is to stay in the enclosed room for several minutes before attempting to look for stray light. Cracks in doors and other defects are often unnoticed until the eyes have become thoroughly accustomed to the darkness. If a light leak is located, it should be repaired or some arrangement made whereby the light is not permitted to enter the room.

REVERSED IMAGE

An occasional reason for fog comes in the form of a reversed image, in which case the image appears as a positive rather than a negative. It is caused by a light leak in the darkroom or by the use of an improper safelight during the development operation.

A reversed or positive image may also occur when an exhausted or a worn hypo solution is used, whereby the action of fixing takes place slowly and the danger of fog is therefore increased. The remedy in such instances is to use a fresh hypo solution and to leave the film in it for at least five minutes before turning on the white light.

Panchromatic films are more susceptible to a reversed image than Orthochromatic films because of their higher speed and thicker emulsion layer. When developing the Panchromatic types, they should remain in hypo in darkness or in weak green light until the whitish appearance of the film has disappeared completely.

PHOTO DATA

CLIP SHEET FOR PERMANENT REFERENCE

MINICAM
PHOTOGRAPHY

EXPOSURE TABLES FOR USE OF HOME LAMPS

WARTIME restrictions placed on the sale of flash and flood lamps have renewed the interest of photographers in the use of ordinary Mazda lamps. Exposure with these lamps is a problem, however, since their color temperature is below that of ordinary photofloods. Here is the table which has been worked out by the Eastman Kodak Laboratories for correct exposure of Eastman films. By referring to the Weston numbers of other films, it can also be used for them.

The exposures below are for Kodak Super XX or Weston 40 film in reflectors. With Plus-X or Weston 32 film, use the next larger lens opening. With Panatomic-X Film, or film of Weston 16, use two stops larger opening or give four times the exposure time.



Higher wattage lamp as side light, placed 45° to camera axis and two feet higher than camera.

Lower wattage lamp at camera.



Lamp-to-Subject Distance	Lens Opening	EXPOSURE IN SECONDS*		
		One 60-watt † One 100-watt	One 100-watt † One 200-watt	One 150-watt † One 300-watt
3½ ft.	f/4.5	1/10	1/25	1/50
	f/6.3	1/5	—	1/25
	f/8	—	1/10	—
	f/11	1/2	1/5	1/10
	f/16	1	1/2	1/5
5 ft.	f/4.5	1/5	1/10	1/25
	f/6.3	—	—	1/10
	f/8	1/2	1/5	—
	f/11	1	1/2	1/5
	f/16	2	1	1/2
8 ft.	f/4.5	1/2	1/5	1/10
	f/6.3	1	—	1/5
	f/8	—	1/2	—
	f/11	2	1	1/2
	f/16	4	2	1

* Exposures for light-colored interiors—use one lens opening larger for dark-colored interiors.

† Use lower wattage lamp as camera light and higher wattage lamp as side light—both lamps at the same distance.

Side light is placed at 45° to the camera axis and 2 feet higher than the camera.

IMPORTANT: The light from both lamps must be superimposed on the subject.

With double lamp wattage, use one lens opening smaller.

With two lamps of the same wattage, place side light at ½ camera-light distance.

Being Critical

"SWISS MISS." Rollei, 1/250 second, f11, Agfa Superpan Press. Children and animals are popular subjects; together, they are doubly so if presented in a fresh and natural way as in this picture. There is both action and subject-interest emanating from the struggle between the girl and the goat. The approach is interesting (the picture was shot from a low angle which increases the dramatic effect); the short exposure "freezes" the action; and there is an awareness of pictorial effect in putting the girl's face in the center of the picture. Additional pictorial effect would have been gained if we could see more of the girl's face and if the space were eliminated between the two subjects. "Trimming" in the middle is always a good way of condensing action. But then, we never had any goats and don't know their viewpoint.

"ALONE." B & J Miniature Press Camera, Bausch & Lomb Tessar Lens, Eastman Plus X, f/8, 1 second. Symbolic genre studies may be quite interesting but their first commandment is *clarity*. In studying this picture we couldn't make up our mind what it meant: (a) a chessboard with a lone figure; (b) a water-hydrant on a checkered square; (c) the interior of a Orson Welles motion picture set.

You can't make special close-ups without special close-up equipment. The vagueness in the foreground may have been intended, but it doesn't help the picture. The perspective is confusing and, judging from the heavy shadow in the background, the print is underexposed.

If you wanted to bring out the being alone quality of your subject, it might have been better to shoot it from some point above looking straight down at the chessboard with your light falling from an angle so that it would single out the subject like a searchlight.



"DESERT CLASS" f/9, 1/50 second, Agfa Plenachrome. Pictures of soldiers are interesting; however, this shot would be more effective if the idea were clearer. It is crowded with a



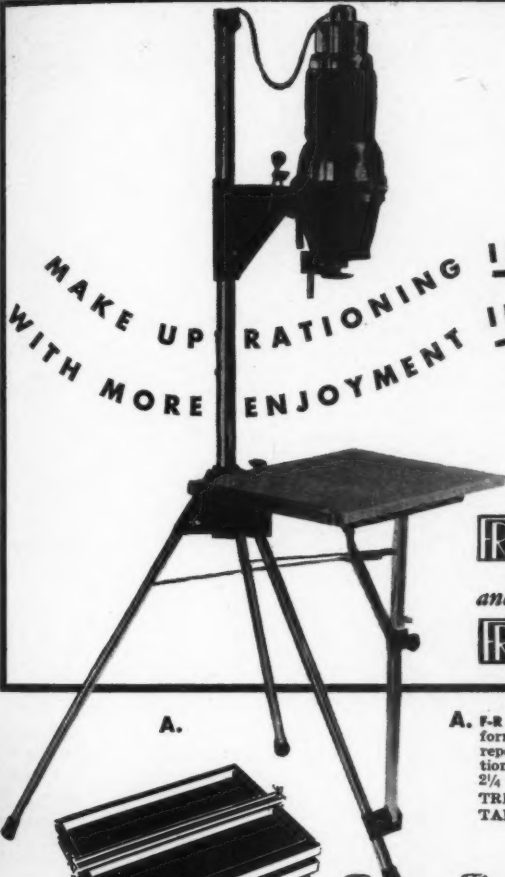
multitude of subjects: the instructor, the soldiers behind him, the first aid equipment, and the tents in the background. We believe this picture needs the subject matter cut down to effectively tell one story.

The lighting was good and the exposure correct, but your main sub-

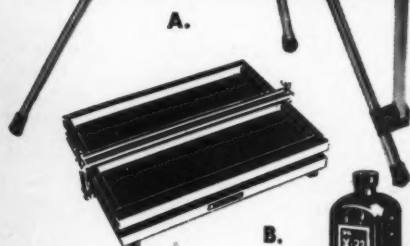
ject should be better lighted, not standing away from the sun. As a record shot this picture will give you enjoyment, but for creative purposes it lacks arrangement, or composition.



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C. F-R X-33 — Thermomolecular
fine grain developer.

D. F-R FIXOL — Concentrated
acid fixing-hardening solu-
tion.

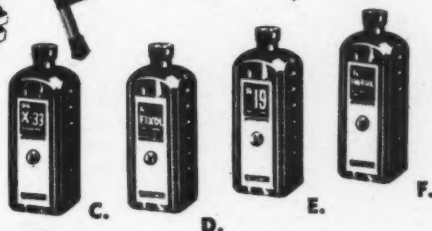
E. F-R 19 — Concentrated print
developer for all papers.

F. F-R HARDENOL — Con-
centrated hardener and acidifier.

* Also a complete line of F-R
dry chemicals for all photo-
graphic purposes.

A. F-R ENLARGER — Flawless per-
formance through the complete
repertoire of enlarging opera-
tions. For all negatives up to
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Behind The Lens with Minicam

ROBERT W. MARKS, whose stimulating articles on photographers and photography have often been seen in MINICAM ("Mary Morris, PM's photo news analyst," "Life's School for Photographers" and biographical sketches of Horst, Elisofon and others), became interested in photography while working as a copy writer in an advertising agency. He wanted to be able to make his own layouts, so he bought a camera and all the gadgets. He later spent a year as a free-lance press photographer, result: "I nearly starved."



Bob Marks was born in Charleston, S. C., and he was fired successively from many of the finer institutions of learning of America and France, including the Porter Military Academy, the College of Charleston, Yale University, and the Sorbonne. A democratic individual, he has also been fired from the staffs of most of the newspapers in New York.

At one time or another he has written for *The New Republic*, *The New York Times*, *N. Y. Herald Tribune*, *N. Y. Sun*, *N. Y. Post*, *Musical America*, *The Musical Quarterly*, *Harper's Bazaar*, *Coronet*, *Esquire*, *The Readers Digest*, *Good Housekeeping*, and *The Saturday Evening Post*.

His newspaper career started when he was in college. He wrote the music columns for *The*

Yale News, *The New Haven Register*, and the *Chicago Tribune*. His musical education included study in theory and composition at Columbia, and his first published article of any consequence was "The Music and Musical Instruments of Ancient China" in the *Musical Quarterly*, 1932. He still thinks his most interesting job was the research he did in primitive and oriental music at the American Museum of Natural History. He hoped to head a department for the study and comparison of primitive and modern music and musical instruments. In this connection, he prepared an encyclopedia of primitive musical instruments.

He has forthcoming articles in *The Saturday Evening Post* on the Fairchild Aerial Camera and in *Esquire* on "The Life and Loves of a Termite," "Chinese in Three Days," "The Jet Propulsion of Airplanes" (Flying on Hot Air), and the "Polite Uses of Magic Squares."

One of the choice stories in Bob's collection is in connection with his article which appeared last fall in *Esquire*, titled "Forget About Grammar; Learn 'Pidgin' Japanese". After the article appeared, there came a knock at the door of his apartment. The caller introduced himself as a member of the Japanese Division of the Army intelligence staff and started a lively conversation in the choicest lingo of *Dai Nippon*. After considerable repartee, during which Bob modestly disclaimed any great knowledge of Japanese, he finally broke down and confessed: "I'm sorry, I'm a newspaper man, not a linguist. The article on Japanese was based on some facts and a slight vocabulary of Japanese which I got in the library. I set them in the form of a game and the article resulted."

"Well," replied the Army man, "your article is so good that it is being read and studied in many Army camps. If you can do this kind of a job without knowing Japanese, you could be really useful if you learned some."

So back to college went Bob, he now spends eight hours a day learning Japanese and the fine points and niceties of saying, "Will your noble lordship condescend to demean himself sufficiently to raise the honorable pot of tea and gracefully pour a few drops in this unworthy cup proffered by such an unworthy and unlearned person?"

Bob's MINICAM story on Milton Caniff, page 50, is done at the instigation of two of the editors of MINICAM who were schoolmates of Caniff. Caniff and Marks got along famously, having much in common with their study of the Orient and interest in photography.



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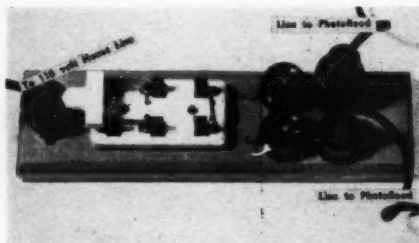


ROCHESTER, NEW YORK

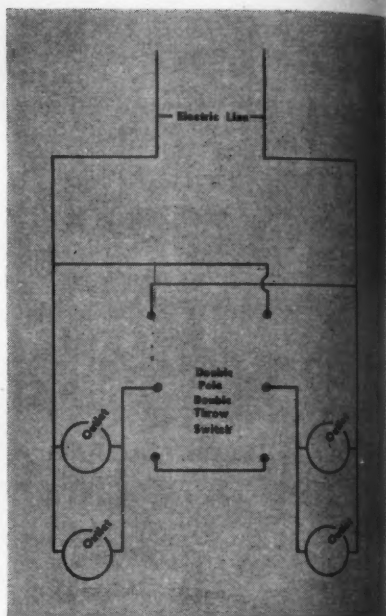
GADGETS, KINKS AND SHORT CUTS

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TAKE a board 12"x4½" and sand clean. Mount a double pole, double throw switch and five female outlets. Use two No. 2 bulbs, or any photofloods of the same size in pairs, plugging into each side of the circuit. While focus-



ing and lighting the subject, use lights on half circuit. Not only does this system lengthen the life of the bulb, but it is cooler for the subject during the preliminaries. When ready to shoot, throw the switch to the other contact, and full power is obtained.



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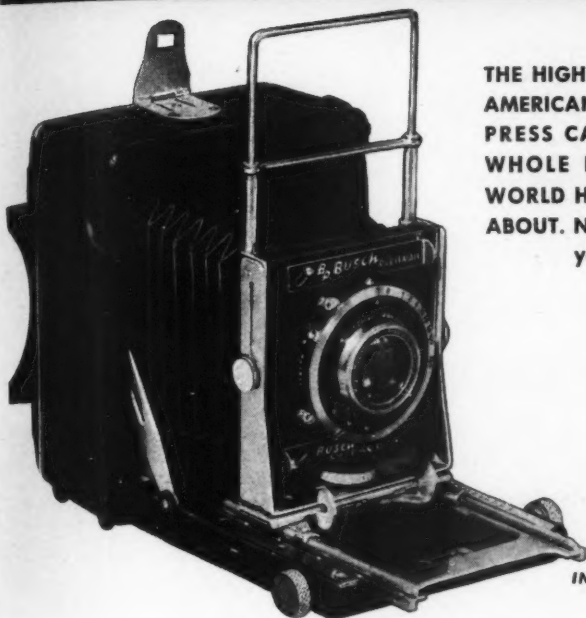
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One of the spouts is cut off with a saw to permit insertion of the socket. After screwing the bulb into the socket red cellulose or black friction tape can be used to fasten the funnel to the light socket.



The two funnels are held together with red cellulose tape to prevent light escaping and fogging the sensitized photographic paper. A metal or plastic screw cap, obtained from toilet preparation containers, is used to seal the spout of the lower funnel.



The end of the spout is scored to permit screwing on of the cap.

With the cap removed, this unit can be used as an inspection light to examine prints in the fixing bath or to locate dropped articles in the dark-room.

Before actual use, the usual fogging test should be made with the assembled unit by placing a coin on sensitized paper and exposing it for five minutes to the illumination from the safelight. If no outline of the coin is shown after developing the paper, the light is safe for use.—A. M. Lavish.



CLASSIFIED ADVERTISING

MINICAM PHOTOGRAPHY has 78,291 net paid monthly circulation; including all manufacturers, jobbers and dealers in the photographic industry; as well as well-known photographers, instructors of classes in photography, photo squads of the Armed Services, advanced amateurs and beginners. These 78,291 readers are an influential market. Rates for advertising in these columns are ten cents a word. Ten words is the minimum order accepted. Each word counts. Forms close March 8 for April issue.

WANTED — TO BUY

WANTED—One Weston Master Meter. First class condition only. Carl Zeiss Binoculars 7-50 or stronger. Cash price first letter. C. G. Albrecht, 103 Market St., Hattiesburg, Miss.

WANTED—5x7 Camera with portrait lens and portable stand. Pelham, 1226 Perry, Montgomery, Ala.

SPOT CASH WAITING! 16mm Sound projectors; ROLLEIFLEX CAMERAS, Cine Special (Cameras-Lenses) Mogull's, 67 West 48th, New York.

WANTED—Best Leica, Contax or Contaflex \$125 will buy. Dr. Pilzer, Dickson Bldg., Norfolk, Va.

WANTED—15mm Finder for Filmo Automaster. Chas. A. Miller, 3649 32nd St., San Diego, Calif.

SEND US YOUR CAMERA TODAY. WILL SEND CERTIFIED CHECK BY AIRMAIL IMMEDIATELY. Items held ten days for your approval of our price. Free Estimates—Trade-ins. Highest prices in the U. S. for photo equipment. "Cleveland's Camera Super-Market." Rotbart and Reitman, 1900 East 9th Street, Cleveland, Ohio.

KINE EXAKTA OR EXAKTA B and case wanted for cash. Wm. Lerner, 677 West End Ave., New York City, N. Y.

ROBOT I MAGAZINES, accessories. Feldman, 2736 Huntingdon Ave., Baltimore, Md.

8MM KEYSTONE, Bell & Howell, Bolex projectors and cameras, all models Speed Graphic Telephoto lens, etc. We will pay highest cash prices. We need your equipment now. If you have some item you don't need, write for our cash offer or ship it direct to Bleitz Camera Co., postage collect. (Please quote your price so our check can be sent immediately.) If our offer is not satisfactory we will return it at our expense. Bleitz Camera Co., 5338 Hollywood Blvd., Hollywood, Calif.

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ARGUS C, \$23.00. 9x12 Camera, Unofocal, F4.5. Promtor, Accessories, \$35.00. O. Ottman, Greenville, Ohio.

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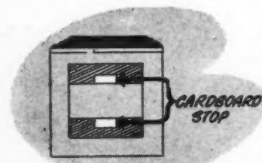
OUT OF THE LAB



By RALPH HABURTON

A FELLOW CAMERA and chess addict passed on a good stunt for using 4 by 5 film in a 5 by 7, without a reducing back. Just put the 4 by 5 cut film sideways in the 5 by 7 holder.

If accurate framing is required, fasten thin cardboard stops into the holder in order to center the film. A 4x5 area can be marked with pencil lines on the



ground glass. We don't see any reason why the same thing can't be done with 6.5 by 9 cm film in a 9 by 12 cm holder. Can you?



There seems to be a steady decline in the number of "trick" developer formulae. On the upgrade, however, is the conviction that you can do a lot with almost any standard developer, if time, temperature and concentration are properly selected. I recently saw some juicy fine-grain negatives which yielded excellent prints. These negatives were processed in print developer, undiluted D 72 stock solution for 45 seconds, and then rinsed in plain water for one minute with slight agitation. All solutions were at 70 degrees.



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Fine developing and printing can't be done at bargain prices. Perhaps your best negative is on your present roll, but unless it is expertly developed and printed you'll never know. Edwards individually develops, hardens and vaporizes every film. Each print is separately made by hand, with full consideration of negative characteristics. Edwards' service is unequalled and reasonably priced.

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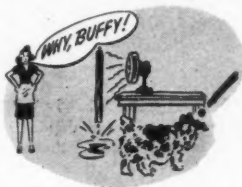
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When drying roll film in home-made dryers or before a fan, be sure that your arrangement is such that the film dries from the top down. If you don't, you are likely to find that you are the owner of a choice collection of water-spots which were caused by drops from the wet film or clips falling on the dry portions. Drops from a wet to a wetter part should cause no trouble.



You'll save time and temper if you systematize the making of montages. Start with as many sheets of paper as there are negatives to be blended, and use paper of the same type or speed for test strips, in order to get the correct time for each image. After determining the correct time and placement for the first image, print each sheet from this negative. Then print from the second negative on one sheet only. This proof will enable you to make corrections before printing the other sheets. From this point on make one proof for each negative printed, so that just before the last negative is printed you will have two sheets exposed from all previous negatives. One will be a proof and the other will be the pudding. We hope.



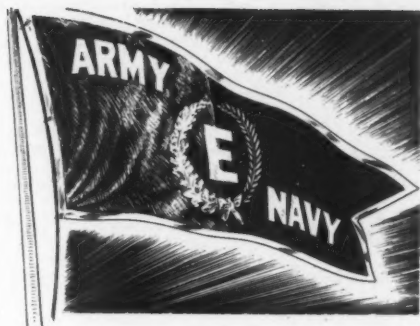
Now is a good time to repair your old plate holders. Rumor No. 427,169 indicates that plates may be available even if cut film becomes scarce.



There are some advantages to plates, particularly for quick-work and color work, so even if the rumor is without foundation, you have something worth doing.



Another use for D 72 (or any similar alkaline print developer) in connection with negatives is in the removal of water spots. You can use your regular printing set-up. Put the ailing negative in the print developer for about two minutes, then rinse for half a minute in water and transfer to a fresh hardening fixing bath. Don't use an acid short-stop or you may find yourself wishing that you had water-spots instead of blisters or pin-holes.



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INSIDE Hollywood

HOLLYWOOD HAS A PHOBIA about cinematic material and duplications. In the old days, if it were discovered that a production were similar in theme or locale to another about to be released, it would be shelved. The only exception was fad material—something that was popular, at the moment, with the public. Eras began, then suddenly ended when public fancy was glutted. Several mid-victorian costume pictures would appear at the same time. Pirate stories would get a play for a time, then be replaced by some other theme. A recent fad era was the "Anthony Adverse"—"Gone With The Wind" period, which brought us dozens of similar productions. The only similarity, however, was in period or locale. The plot and treatment were different.



BRIGADIER GENERAL Eugene L. Eubank, Army Air Corps, does an important acting and narration job in "Bombardier," RKO's forthcoming air drama.

Today we get war themes. They are usually as carefully planned and produced that plots seldom receive the same treatment. If a formula is used, it is only because the guiding minds feel that a formula is necessary. Coincidences, however, are embarrassing. One has just occurred involving three studios whose major productions are built around authentic aerial reconnaissance records. Metro-Goldwyn-Mayer, in "A Guy Named Joe" uses spectacular aerial photography which comes from official records. They include dog fights with German planes over France, the destruction of an Axis aircraft carrier seeking out a United Nations convoy, and the blowing up of a gigantic Japanese munitions dump on a South Sea island. In "Lady Bodyguard" Paramount uses an actual Los Angeles occurrence which was the roar of local anti-air guns at an imagined enemy in the skies over the

MARCH CONTEST CALENDAR

Open to	Subjects	Prizes	For copy of rules, write to	Closing Date
Amateurs	Photographs must dramatize some phase of our civilian war effort.	\$500 War Bonds Awarded every month.	Victory Photo Contest, Victory House, Farthing Sq., Los Angeles, California.	Last day each month.
Amateurs	Any	\$25 in awards, including three \$5 prizes weekly.	Camera Contest Editor, Chicago Herald-American, 326 W. Madison St., Chicago, Ill.	Weekly.
Amateurs	Any. Award based on subject interest and initial impact.	\$10, \$5, \$4, \$3.	Mechanix Illustrated, 1501 Broadway, N.Y.C.	24th of each month.
Anyone	Photographs featuring war winning activities to serve as posters.	War stamps of \$25, \$15, \$10.	Minicam Photography, inspirational nature; size optional.	March 15th
Press Photographers	Pictures in which cigars play a news worthy part and which were taken in course of regular duties and published.	\$50, \$25, 5 awards of \$20, 5 awards of \$10 and extra awards for special merit.	Photo Judges, Cigar Institute of America, Inc., 630 5th Ave., New York, N. Y.	March 31st, 1st 1943 competition; 2nd, June 30th; 3rd, Sept. 30th; 4th, Dec. 31st.
Amateurs	Any picture taken within grounds of Philadelphia Zoological Garden.	1st, \$15; 2nd, \$10; 3rd, \$5, and other awards.	Mrs. Isabelle Kauffeld, Philadelphia Zoological Garden, 34th St. and Girard Ave., Philadelphia, Pa.	April 10th

city many months ago. A fast-thinking Paramount crew shot hundreds of feet of film during the barrage. RKO, in "Forever and a Day" uses official records made by British army photographers during the Blitz on London, showing actual air battles between British and German planes. As all proceeds of RKO's movie go to United Nations' War Relief, the British Ministry of Information contributed the films. In all cases the substance is similar. The embarrassing part is that all three pictures are due for release at about the same time and a great deal of publicity on the authentic aerial scenes is planned by each studio. Timed together, as the releases will be, each movie will probably take the thunder out of the release of the other.



IN PARAMOUNT'S "The Morning After," Preston Foster and Patricia Morison run across the parapet and climb down the ladder, all of which has to be photographed on one continuous piece of film. The cameraman on the boom is in for a wild ride.

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SALONS AND EXHIBITS

★ Follows P.S.A. Recommended Practices

Closing Date	Name of Salon	For Entry Blank, Write to	No. of Prints & Entry Fee		Dates Open to Public
Exhibit to see	1942 Newspaper National Contest Exhibit.		....	....	March Buffalo Museum of Science
Exhibit to see	★10th International Salon of the Pictorial Photographers of America.				March 1-21 Museum of Natural History N. Y. C.
Exhibit to see	★30th Annual International Pittsburgh Salon.				March 19- April 10
Exhibit to see	Twelfth Annual Boston Salon of Photography.				March 28-29 351 Newbury St. Boston, Mass.
Exhibit to see	★Third St. Louis International Salon of Photography.				March 13-28 City Art Museum
Exhibit to see	Franklin Photographic Society of Philadelphia, Pa.				Daily 11 a.m. to 11 p.m. at Club Gallery, 2601 Parkway.
March 1	Seventh Annual Photography Show.	The Parkersburg Fine Arts Center, 317 9th St., Parkersburg, West Virginia.	....	....	March 7- April 9
March 10	★Third Paducah International Salon of Photography.	E. E. Curtis, Salon Chairman, Box 203, Paducah, Ky.	4	\$1.00	April 11-17 Carnegie Public Library
March 15	Sixth Annual Rocky Mountain National Salon of Photography.	Basil Leonoff, 1485 S. Milwaukee St., Denver, Colo.	....	....	April 1-15
March 23	Seventh Va. Photographic Salon.	J. Lynn Miller, Camera Club of Richmond, 14 S. Seventh St., Richmond, Va.	8 @ 25c	Min. \$1.00	May 1-15 Va. Museum of Fine Arts, Richmond, Va.
April 15	★Fourth Toledo International Salon.	Lev F. Powers, Salon Chairman, 4450 Vermaas Ave., Toledo, Ohio.	4	\$1.00	May 9-30 Museum of Art Toledo
April 15	1943 National High School Salon of Photography.	Salon Committee of the National High School of Photography, 345 East 15th St., New York, N. Y.		None	May 15-June 1 Am. Museum of Natural History New York City
April 19	★Montreal, Quebec Salon.	Mrs. R. Carson, 77 Sunnyside Ave., Westmount, P. Q.	4 mono. 4 color process	\$1.00	May 8-30
To be Announced	Salon Photographs by Brooklyn Photographers.	Write Brooklyn Museum, after March 23.	....	....	Brooklyn Museum June 4-27
May 1	Second Chicago International Photographic Salon.	Stuyvesant Peabody, Chicago Historical Society, Lincoln Park, Chicago, Ill.	4	\$1.00	Chicago Historical Society Bldg., Lincoln Park, June 1-Sept. 7
May 12	Fifth International Salon of Nature Photography.	Mrs. Matthew R. Barcellona, Editor, Buffalo Museum of Science.	4	\$1.00	May 19-June 18 Buffalo Museum of Science
May 22	Fifth Annual International Salon.	Miss Betty Phillips, Salon Chairman, Watertown Camera Club, Watertown, N. Y.	4	\$1.00	June 7-19
May 22	★Twelfth Annual Detroit International Salon of Photography.	Wm. H. Lane, c/o The Detroit Institute of Arts, Detroit, Michigan.	....	....	June 8- July 4

Metal Movie Titrer Set

A Metal Movie Titrer Set, distributed by Frank A. Emmett Co., 1264 South Federa Street, Los Angeles, Cal., consists of raised letters, figures and various characters, die cut, and modern in design. Powerful magnets hold letters and figures to the dull-finish Metalet Background Panel.

The magnet method enables the photographer to produce almost any desired effect—curves, zig-zag, star-shaped—and will hold all iron surfaces through paint, lacquer, enamel, or paper.

There are 175 letters $\frac{3}{4}$ " high; figures are

slightly smaller. There are 40 power magnets and one metalet background panel. The complete set retails for \$19.95.

Plastic Film Hangers

Raygram Corp., 425 Fourth Ave., New York, N. Y., introduces a line of plastic film hangers for cut film and pack film. List prices are: $3\frac{1}{4} \times 4\frac{1}{4}$ cut-film or pack-film hangers, 75c; 4×5 cut-film or pack-film hangers, 80c; 5×7 cut-film hangers, \$1.00.

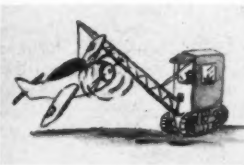
A novel top bar drops into position and firmly locks film so that it cannot float off when being agitated.

MORE FACT THAN FANCY

By Paul Hopkins

Paramount Studios have built a large boom to permit realistic filming of miniature airplanes in flight.

In the old system, model planes were suspended from a carriage that traveled across the set on overhead wires. Now the models can be made to execute practically every aerial maneuver except loop the loop, can drop flares and parachutes, or explode and fall in flames.



When animated characters, such as Donald Duck, apparently walk along with the camera in a "pan" shot, actually both Donald and the camera are in one place. The animated drawings are so made that the background slides past behind him, giving the effect of both figure and camera moving together.

High-speed motion-picture cameras taking as many as 2,200 frames per second are used to record rapid structural collapse of airplane skeleton framework when heavy loads are placed on the frames to test their strength.

The oldest motion-picture film in the storage vault of Wright Field is of the demonstration flight given by Wilbur and Orville Wright for the Army in 1908.

Many movie sets consist of light muslin walls which are called "wild walls" because their movability permits greater freedom in choosing various camera angles. Muslin is chosen not only because it lends itself to any necessary surfacing treatment which



makes it look real to the camera, but also for acoustical reasons and low cost. The movie studios are trying to stay within a \$5,000 prop ceiling per picture for the duration.

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Way...1563-A	Donald Duck's Outing...1551-A

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Movies

PHOTOGRAPHERS SHOULD SEE

By Joseph Wechsberg

A CAMERAMAN'S DELIGHT is Casablanca (Warner Bros.); and Arthur Edson, director of photography, did such a splendid job with it, he may get a nomination for the Academy Award. A superb thriller, the picture offers excellent opportunities for the use of searchlights, blacked-out rooms, effect lightings, weird shadows, a scale of black-and-white contrasts. The beginning shows an excellent photo-reportage of Casablanca and in strange, sinister, plotting crowd. The film winds up with a moody shot of Humphrey Bogart and Claude Rains walking across the airfield through a dense fog, their voices dying away in the darkness. Between the beginning and the end, there is some of the finest action photography of the year.

Edson has a feeling for impressive, suggestive mood. He lets the camera speak for itself, brutally scan the faces of the people, scheming, kind, cynical, helpless, honest, mean. He lets the searchlight from the airfield's tower slowly rotate across the close-up of the faces; a simple trick but see what it does to your nerves! No dramatic effect has been overlooked: stairs, shot at a low angle with the light falling in from a doorway; Venetian blinds casting striped shadows on the features of the players; a darkened night-club and a strong light searching for crime. In a silent flashback the camera goes to Paris shortly before the occupation; the pace of action is terrific and there is a convincing feeling of reality as though the goings-on on the screen were real. A notable achievement.

***Stand By for Action** (Metro-Goldwyn-Mayer) contains some of the most spectacular sea battle scenes ever made. The sequence of the U. S. destroyer driving in on a Jap battleship and sinking her in a dramatic action won't be forgotten. Charles Rosher, cameraman, has pointed up the drama by an occasional glimpse of the face of a sailor. The contrast between a human face and the fireworks of destruction speeds up the suspense.

***Lee Garmes**, one of Hollywood's most orthodox cameramen, is credited with the up

ranking photography of Ben Hecht's *China Girl* (20th Century-Fox). Photographic highlight of the picture is the bomb shelter sequence in Kunming, with a Chinese school being held there while Jap dive bombers stage a terrific attack against the undefended town. Now that photography has become a weapon of morale-building and propaganda, you will see what can be said, with a camera.

★ *Air Force*, the new \$2,500,000 epic (Warner Bros.) promises to become the greatest aviation picture ever made.



tion picture ever made. Cameraman Jimmy Wong Howe photographed the spectacular story of a B-17 bomber from its take off at San Francisco until after a series of highly dramatic scenes, it burns in Australia. At Drew Field, Tampa, Fla., the attack on Honolulu's Hickam Field was staged with so much realism that there were several near accidents. Ten cameras are used throughout the picture; supreme realism is the keynote. The only inaccuracy is the use of Chinese for Jap villains. Howe uses head-on lighting to turn the soft faces of the Chinese into the harsh, hard features of the Japs.

★ The lighting problem of the year was faced on the set of *Lady in The Dark* (Paramount). Every available generator in Hollywood and every 150-amp rotary spot had to be borrowed from other studios to flood the stage with a total of 30,000 amps. The film is being shot in Technicolor and there is a gradual color change from green to blue to gold and then to a combination of all three in the dream sequence of the script. The scene shows a bridal procession led by twelve bridesmaids, twelve ushers and a flower girl. Swirling blue mists finally obliterate the scene; and Ginger Rogers, having dreamed the whole thing, is back again in this unpoetical world.

And don't miss: *Tennessee Johnson*, *Star Spangled Banner*, and *Shadow of a Doubt*.



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3¼x4¼ R. B. Series D,	\$167.50
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CAMERA CLUB

--- NEWS AND IDEAS ---

ONE OF THE SIGNS of spring, like the children cutting pussy willow shoots to take to school, seems to be the spirit amongst camera clubs this month to get out and do things.

A FIRST ANNUAL Canadian Salon of Photography is reported in *The Monthly Review* of Montreal's Amateur Photographers' Club.

ATLANTA, Georgia's *Camera Club News* reports a lively discussion amongst members on the possibility of a permanent, downtown club room and darkroom.

THE WEST HAVEN Camera Club, West Haven, Conn., is a new club that welcomes suggestions from other clubs both on programs and what they can do in return.

MEMBERS of the Fort Dearborn Camera Club, Chicago, start their semi-annual School of Photography on March 16. Among the speakers for the series of lectures are: Dr. Max Thorek, Morris Gurrie, H. K. Shigeta, J. P. Wahlman, S. J. Silverstein, Fred G. Korth, R. H. Griffith and Rolland A. Rahe.

THE FOOTHILL Camera Club, Pasadena, Calif., has started a swap column in *The Bellows* beginning with "Exchange . . . 15 gr. gold chloride for one tablespoon of old dried coffee grounds."

THE CHICAGO Area Color Camera Club's course in Color Photography, for 35mm. and bantam Kodachrome workers begins March 25th; classes will meet each week for six weeks. This course has been a successful annual affair for several years, and anyone is eligible to take the course.

WE'D LIKE to repeat from the *Bulletin* of The Richmond, Va. Camera Club their mellow tip from the 1868 Louisville *Daily Journal*:

"Ladies, when having their photographs taken, may observe the following rules with some advantage to their appearance: When a lady would compose her mouth to a bland and serene character, she should say, 'Broom,' and keep the expression into which her mouth subsides. If, on the other hand, she wishes to assume a distinguished and somewhat noble bearing, not suggestive of sweetness, she should say, 'Brush,' the result of which is fallible. If she would make her mouth look small, she must say, 'Flip,' but if the mouth be already too small and needs enlargement, she must say, 'Cabbage'. If she wishes to look mournful, she must say, 'Kerchunk'. If resigned, she must forcibly ejaculate, 'Scat!'"

"ENLIST YOUR PRINTS" from *The Metro Camera News* of Metropolitan Area Camera Clubs of New York is a wartime thought we'd like to quote:

"Prints in large numbers still are wanted for exhibition at army camps and military posts by the Photo Exhibit Committee, 36 East 36th St., New York.

"These prints need not be mounted, but should be good and must be interesting. Contribution of such prints makes a helpful wartime project for camera clubs. Members frequently have unmounted prints which they would be glad to donate for this commendable cause. Many men now in uniform are dyed-in-the-wool photographers, and the sight of prints on exhibition at the camps is a real pleasure and thrill for them."

A NEW USE for the pictures that are so bad they're funny has been found by *The Bulletin* of the Photographic Guild of Detroit. Members are saving them for the "First Annual Screwball Salon of Photography," in June.

CLEVELAND'S *Thru The Darkroom Door* is doing its bit on the home front. Members are taking turns so that nightly one of them is "on duty" in the city's USO photographic laboratory.

A STROBOSCOPIC shot at 1/30,000th of a second with any kind of camera was the invitation of *The Monthly Exposure* to its members. Since stroboscopic speed lights have developed new possibilities in photography, the Springfield, Mass., Photographic Society believes that these lights will become regular equipment after the war. Members with any type of camera could take a picture because it was necessary only to open the shutter on "bulb" or "time" and let stroboscopic light do the rest. Who said you can't get action shots without flashbulbs?

IF YOU WISH to increase your camera club library, write to Mr. H. G. Holt, 9 Canterbury Street, Andover, Mass., who has the following issues of MINICAM, in good condition, which he will donate to any club wishing to pay the express for them:

1938 Jan., July, Aug., Oct., Nov., Dec.

1939 all issues.

1940 all issues.

1941 all but April and June issues.

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The Cope Studio, 3720 South Figueroa Street, Los Angeles, Cal., will release a different old-time movie direct from professional 35mm. film to 8mm. every month. Membership to the 8mm. Movie-a-Month Club is free. Exchange price for the next month's release is \$2.00 per reel if film is returned within 30 days in good condition.

Elders will recall many of these interesting reels with pleasant memories while younger folks will see slapstick comedy at its best.



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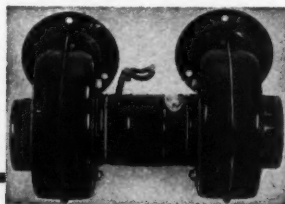
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Creative Photography

(Continued from page 70)

Vera stated her success briefly: "The secret of becoming a successful salon exhibitor is to submit pictures to which most people have the least objections." And to prove her point she showed us her 11x14 prints that were taken on her travels. There are sheep and clouds, clouds and sheep, mountains and sheep, and just sheep. And who could find any objections to a woolly little sheep?

I wouldn't say that Cody, Matte, and Vera are average pictorialists. But I would say that the average pictorialist does not spend enough time learning to use his mental equipment; does not spend enough time or effort ahead of the actual exposure. And writers must take a good share of the blame. In the search for something to write about for the photographic magazines they have loaded photographers' minds with such terms as bisecting diagonals, balancing horizontals, opposing masses, "S" curves, dynamic harmony, emphasis and rhythm until there is little room or time left for the old-fashioned term, "picture." After all, who considers just pictures?

Photography has had more than a hundred years to grow up. As a recorder of physical facts, it is unsurpassed. As a recorder and purveyor of man's thoughts, as a tool of the artist, it is also unsurpassed. That art, truly worthwhile art through photography, will come into being as certain as Allied Victory; but it will never come into being through the befuddled thinking or lack of thinking now in vogue. If we are to remedy the situation, if we are to make pictorial photography an acceptable art, we must cut our minds in on the job. It is just as simple as that.

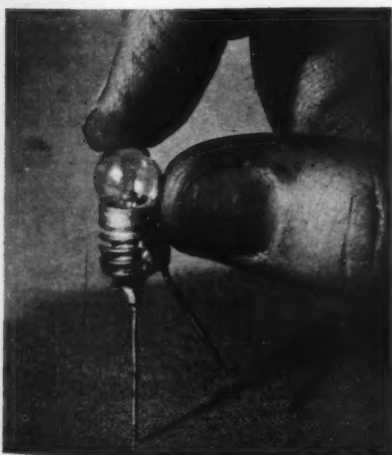
I have worked out a seven-step system for the production of ideas that can be adopted by anyone who will give his or her mind a chance to function in a normal unhurried manner. This seven-step system tells you how to locate, isolate and work up a picture idea. Worthwhile or lasting

pictorial photographs (lucky snapshots excluded) must have their beginning in the mind of the artist-photographer. The mind, little understood and seldom used seriously by pictorialists, is the number one tool of every creative person whether the creative effort is directed toward music, writing, painting, or pictures by photography. It can be made to do the things that we want it to do, but we must sweep it clean of ambiguous and unusable terms and statements to make working and living space for new and worthwhile picture ideas.

In the next issue of MINICAM PHOTOGRAPHY I want to describe the seven steps in this process; I am going to assume that you have a desire to produce a picture, a really great picture, a picture that will express you, a picture by photography that will live, a picture in which even salon judges will find stimulation. Assuming that you have such a desire, I will talk directly to you.

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gun or a commercial one that is not equipped with a built-in tester, this gadget will be a useful addition to your outfit.—Robert Scott.

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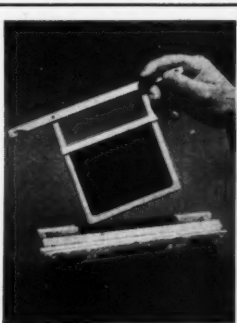
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PRODUCTS

Ilex Optical Co. Wins "E" Award

The Ilex Optical Company of Rochester, N. Y., manufacturer of shutters, lenses and other precision optical instruments, was presented with the Army-Navy Production Award "E" flag at ceremonies held in the Rochester Chamber of Commerce. Lieutenant Henry Schumer, Army Air Force, served as master of ceremonies.



In the above photo are shown Rufus Rosenbloom (left), president of Ilex Optical Company; Willis McDonnell (right), representing the men and women of Ilex, and Major Halsom I. Battley (center) of the Army Air Force.

In acknowledging the award Mr. Rosenbloom said: "I am very happy to accept the Army-Navy 'E' Pennant which we shall display proudly as a symbol of our devotion to duty. It will be a source of inspiration to us to excel our previous efforts."

KODACHROME transparencies featuring the Latin American countries and including Mexico are available from L. R. Biber Co.

The combination of six slides to a group which has proved such a success with North American Sets is continued and is listed at \$3.00 a set; no single slides are sold.

With traveling out for the duration, less film and less shooting opportunities available, slide fans will welcome this opportunity to round out their collections and keep them up to date.

The L. R. Biber Co., Times Building, Times Square, New York City, has descriptive literature ready which is mailed free of charge against a self-addressed stamped envelope.

The PHOTRIX Electronic Timer manufactured by Photovak Corporation, is an electric control apparatus for turning on an electric current and for turning it off automatically after a predetermined time. It is designed particularly for photographic contact printers, enlargers, blue printing machines, etc. A detailed description can be obtained from the Intercontinental Marketing Company, 95 Madison Avenue, New York.

Art of Poetic Accident

(Continued from page 31)

has undergone numerous influences. First and foremost he was affected by the Surrealists' faith in accidents as the true source of the marvelous. His contempt for conscious composition—note the contrast with the approach of the view camera enthusiasts—was partially inspired by the Surrealists, partially by the early Chaplin films in which the great comedian wandered in and out of scenes haphazardly arranged, inventing "business" as he went and paying no attention to the elaborate placing of actors and incidents even then practiced in Hollywood. But no one before him ever evolved so cohesive, romantic, disturbing and violent photography of the poetic accident. No one before him ever had quite his gift for consistently discovering the miraculous phase of the commonplace. Surely he will some day stand as the most original photographer to have developed in the 1930's.

It is far too early to make so extravagant a claim for Helen Levitt in the 1940's. Nevertheless, it would be difficult to praise her too highly for what she has already accomplished. Using a technique less atmospheric and magic than Cartier-Bresson's, but cleaner and more solid, she has made a magnificent series of prints of children at play. Her preference is for the children of Harlem, where the relation of child to city is more acute and real than in prosperous sections of New York, where the pavement is the nurse of the young, a blackboard for their fantasy. She photographs children at the weird climax of their activities, recording their daring, the ruthless energy of their dreams, the capacity for charade which transforms them behind the masks they wear. In doing so she furnishes a document on childhood which should be of great value to psychiatrists as well as to those who recognize children's games as Americana of the first importance. For those who prefer to admire fine photography for its own sake, she is creating images of a new and moving beauty.

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Use a tray conveniently larger than your film, but not so large that one film can pass beyond another in rocking. Unload the half-dozen exposed films, laying them across a film box so that the edges extend to permit picking them up one at a time between thumb and fingers. Do not touch the emulsion. It is important to immerse or spray both sides of each film with water to prevent adherence. Deep into developer and cover well by rocking the tray. When all are in the developer, continue to rock the tray but—and here's the secret—never try to change the films around. Keep your hands out. When the time is up, pinch edge of bottom film between fingernails or fingertips and pull it out, rinse and drop into hypo. Repeat this operation with the next bottom film until all are out.

The films get the same time of development since the first in is first out; and if the film has been moistened on both sides before putting into the tray, the sheets will remain separated.—C. C. Caswell.

Nitrate film base and gun cotton, a dangerous explosive, both require the same basic materials of nitric acid and cotton.

How to Copy Prints

(Continued from page 20)

First, you may use one of the little calculator cards which the E. K. Co. puts out. It sells for ten cents and has instructions printed on it. It is called "The Effective Lens Aperture Kodaguide." Second, you may make, say, two exposures, corresponding to 1.5 and 3 times the value given by the exposure meter.

However, if you are copying a Kodachrome, exposure is very critical, so the last method described will not be a good one. The formula is recommended for color use.

If you are using a camera which is not equipped for ground-glass focusing, the method described above for determining the proper exposure is still satisfactory. In this case, one measures the distance from center of lens to film, and divides it by the distance from center of lens to the print being copied, in order to get the magnification (m). If a supplementary, or "portrait," lens is used, the above method is the simplest. The reason for this fact is that after you have affixed the supplementary lens you have an entirely new lens, and the focal length is not known. Since the focal length of the lens is not known, the "Effective Lens Aperture Kodaguide" cannot be used. I might suggest here that since every photographer ought to know the peculiarities of his camera, it would be well to measure the focal length of the lens with the supplementary, or "portrait," lens attached. This is very simply done as follows: Affix the "portrait" lens. Take off the back of the camera and put a piece of paraffined paper (or a ground-glass) at the place where the film normally lies. Next focus the camera on a distant object, so that the image on the ground-glass is sharp. The focal length of the lens is then the distance from the center of the lens to the ground-glass.

In copying, a carefully determined standard procedure will yield most satisfactory results.

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Book Reviews

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WE SHOWED this collection of train books to a friend of ours who knows both trains and cameras. His business is high-balling one of the New York Central's *Hudsons* north from Harmon; his hobby is making travel movies, and who could do it better, since he carries one of those magic cardboards in his pocketbook that makes the conductors smile and pass on to the cash customers. He spoke no word, didn't even look up 'till he had devoured the first twenty pages, then he said, "Old 999 was the best engine ever made, she had everything."

These books contain the finest collection of railroad pictures we have ever seen. They are printed on a glossy paper in a glossy ink to bring out every possible detail. The pages are large and spiral-bound and the pictures are only on one side of the sheets, as a convenience to the makers of scrap books.

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